DEFENDANT'S EXHIBIT No. 1.

Note: This exhibit afterwards stricken out by the Court.

DEFENDANT'S EXHIBIT No. 2.

Copy

February 28th, 1919.

Mr. H. E. Danner, Treas.,
American Dyes Institute,
320 Broadway,
New York City.

Dear Sir:

I submit to you herewith report of work done in connection with abstracting, reporting and demanding patents from February 5th to February 25th inclusive, together with statement of expenditures hereto attached, Schedule "B" with receipts attached being the amounts paid, *and Schedule "C" the amounts due.*

From February 5th to the 23rd inclusive, I had abstracted 3520 patents. Of this number 330 were found to be American owned, and 99 to be owned by Neutrals or Allies. Three thousand and eighty-six were found to be owned by persons, firms or corporations in Germany or Austria, for which reports and demands were prepared at the expense of the institute, with the exception of stamping the report and trust number on each, which is now being done at the Alien Property Custodian's office. In addition to this number 423 of the Badische patents previously reported were added. A summary of the patents abstracted is hereto attached, and marked Schedule "A".

I employed Mr. E. T. Brandenburg as Chief Ab-

stractor with authority to employ other abstractors, one shift for day work and another shift for night work, the patent office being open by special permission nights, Sundays and Holidays for this work. I authorized Mr. Brandenburg to pay for the abstracting at the rate of $25.00 a day for day work, and $4.00 an hour for night and Sunday work, this being the same rates paid by Mr. Hoguet for similar work during the last two months.

I considered the appointment of Mr. Brandenburg as Chief Abstractor absolutely necessary in that it was a physical impossibility for me to personally stay in the patent office day and night, and at the same time direct the clerical work of four offices. I agree to pay Mr. Brandenburg $50.00 a day, as he worked both day and night, and I used his office as a main office for myself and typists.

The Alien Property Custodian's office supplied me with filing cases and folders, carbon paper, paper clips, memorandum pads, and one typewriter. The Dye Institute was charged with only such supplies as were not available from the Alien Property Custodian's office, such as rental of typewriters, printing of reports, etc.

The printing bill seems to me to be rather high, and I am enclosing you herewith copy of my letter to Mr. Barrows relative to same, which is self-explanatory.

Bill for typewriting is higher than I had expected because I did not realize the enormous amount of work involved, but considering that four sheets were necessary (original and duplicate) for every patent report made, and ten sheets were necessary for every demand written (original and four duplicates), it required a great deal of time, in fact about as much time in arranging and separating carbons and copies as in actual typewriting. Am enclosing blank copies of forms used.

I had from twenty-twenty-five stenographers in addition to the two brought down by Mr. Barrows from New York, and found it necessary to use four offices for the report and demand writing.

Good typists are very hard to get in Washington, as those few who have been released by the government departments have been immediately transferred to other departments. I had several whose advertisements I answered to refuse temporary work, and the typewriter companies could not supply me with typists. Therefore, I had to make it attractive for those I employed, most of whom were "off on sick leave" (?) from several departments, everyone of whom were experts, and Mr. Barrows, who understands from firsthand knowledge the scarcity of typists, agreed with me that $1.00 an hour for day work, and $1.50 an hour for night, Sunday and holiday work, was the best we could do under the circumstances, this being the smallest rate charged by public stenographers, and I could not use public stenographers with any degree of success because they would not work more than a few hours a day in order that they might continue the work of their regular customers.

It was necessary that an attorney be in charge of each of the four offices in order to interpret abstractors' reports of doubtful cases, and see that the checking and verifying was carefully done, and otherwise manage the force. This work was done by Mr. Everett from Mr. Hoguet's office, Mr. F. E. Haynes of Washington, M. C. D. Shreve of Wash. and myself in charge of the main office, Mr. Shreve using his own office and typewriters. Mr. Everett's services were loaned by Mr. Hoguet. The only expense to the Dye Institute was his hotel and traveling expenses. I agreed to pay Mr. Shreve $3.00 an hour for his time, and Mr. Haynes $2.00 an hour, Mr. Haynes being a younger man, and with less experience, and not using his own office and typewriters.

I have $16.14 left in bank, and owe $1891.04 as itemized in Schedule "C" attached. Please send me a check for $2000.00 to cover the amounts due, and to pay for the abstracting of 87 additional patents as follows: 20 Licenses by the Federal Trade Commission not heretofore included, 46 Cassella Co. patents, 17 Badische Co. patents, and four others. Mr. Hoguet having directed me this week to include the foregoing, I will remit to you whatever balance I have after paying for the foregoing.

I expect to move back to the Alien Property Custodian's office tomorrow, and the typewriting in connection with these reports and demands will be done by my stenographer there.

I trust that the foregoing report contains all the information you desire at present, but if not, I shall be very glad to go into further details of any branch of the work.

The expense is about twice as much as I thought it would be, but more than twice as much work has been done than I expected to do, as Mr. Hoguet, as well as other officers of the Alien Property Custodian's office, expected that 2000 patents, including the 423 Badische patents, would be about as many as it would be possible to abstract and report, but every single person engaged in this work has worked to the maximum of human endurance from nine o'clock in the morning until twelve and one every night, and though we may have made a few mistakes, I consider that some mistakes were inevitable on account of the enormous amounts of work involved, and the rush in which it was done.

Very truly yours,

WILL T. GORDON.
For Bureau of Investigation.

WTG/JL.
Copy to Mr. Ramsay Hoguet.

SCHEDULE A

Total number patents & applications abstracted	3515
American & Neutral owned	429
Wholly or partially enemy owned	3086
Badische Co. patents previously reported	423
Total on Sales List	3509

SCHEDULE B

Paid by Check	*No.*	*Name*	*Amount*
2-10-19	1	E. T. Brandenburg	$446.00
2-11-19	2	Underwood Typewriter Co.	3.50
2-15-19	3	Miss Josephine Lavinder	78.00
2-16-19	4	C. D. Shreve	129.00
2-15-19	5	Miss Edna P. Swanson	33.00
2-15-19	6	Miss Greta Hazelhurst	51.00
2-17-19	x	Notes Auction House	8.00
2-17-19	9	E. T. Brandenburg	1695.25
2-18-19	10	H. F. Clark, Jr.	28.65
2-18-19	11	Webster Electric Co.	2.50
2-18-19	12	Rebuilt Typewriter Co.	2.50
2-19-19	13	Underwood Typewriter Co.	8.00
2-24-19	14	Ringgold Hart Notary Fees for 169 reports	42.25
2-24-19	15	Jas. T. Wood	200.00
2-25-19	16	Horace F. Clark	11.65
2-[illegible]-19	17	Mrs. R. H. Cromwell	81.25
2-[illegible]-19	18	Miss Louise Faber	91.50
2-24-19	19	Miss Leona Faber	87.75
2-27-19	20	Mrs. B. B. Thompson	97.06
2-27-19	21	P. E. Everett	38.00
2-27-19	22	Miss Edna L. Fox	150.00
2-26-19	23	Miss Josephine Lavinder	37.50

	Paid by Check No.		*Amount*
2-26-19	24	Miss Greta Hazelhurst	$30.00
2-26-19	25	Miss Irma B. Rhodes	69.50
2-26-19	26	Miss Edna P. Swanson	63.00
2-26-19	27	Miss Dorothy V. Aplin	251.00
2-26-19	28	E. T. Brandenburg	633.25
2-28-19	29	Miss Pauline Cauthen	54.75
2-28-19	30	Miss Ruth Stewart	26.25
2-28-19	31	Miss Mary L. Morgan	33.75
			4483.86

Receipts showing foregoing hereto attached.

SCHEDULE C

C. D. Shreve & two typists, day, night & Sunday work	$585.00
F. E. Haynes, night & Sunday work	124.00
E. T. Brandenburg & 5 abstractors	947.00
Bal. on printing bill	228.04
Underwood Typewriter Co.	7.00
	$1891.04

DEFENDANT'S EXHIBIT No. 3.

ALIEN PROPERTY CUSTODIAN
SIXTEENTH AND P STREETS NW.
Washington, D. C.

A.P.C.
RE CHEMICAL INDUSTRIES MATTER

Bureau of Investigation
FRANCIS P. GARVAN
Director

Mr. Ramsey Hoguet,
Singer Building,
New York City.

February 3, 1919.

Dear Sir:

I am enclosing you herewith copy of my letter to Mr. Poucher, which I think covers the instructions you gave me Saturday as to the proper conduct of the work of abstracting, reporting, and demanding enemy patents.

I have arranged for at least one stenographer to be furnished by the Alien Property Custodian and I will devote my entire time in the Washington Loan & Trust Building parcelling out and directing the work.

I suggest that in the event the proposed meeting of the Institute is held Tuesday, which I understand Mr. Barrows will attend, that you may add whatever you see fit to my letter to Mr. Poucher with reference to the possible opposition occasioned by the discussion of the plan on the part of Mr. Barrows with the Federal Trade or its licensees, as it may be possible that Mr. Poucher will not receive my letter before attending this meeting.

Very truly yours,
(Sgd.) WILL T. GORDON,
For Director,
Bureau of Investigation.

WTG:LBF

DEFENDANT'S EXHIBIT No. 3-A.

February 3, 1919.

Mr. M. R. Poucher,
Chairman, Committee of American Dyes Institute,
% E. I. DuPont De Nemours Company,
Wilmington, Delaware.
Dear Sir:

As directed by Mr. Hoguet while in New York Saturday, I have instructed several patent abstractors to report to me at the Washington Loan & Trust Building Tuesday, February 4th, to begin work on Classes 8 and 23. The stenographic help and my services, of course, to be furnished by the Alien Property Custodian.

The abstractors expect their pay by the week, so I am drawing on you for $500.00 initial expense in accordance with your agreement with Mr. Hoguet. I shall deposit this fund in the Washington Loan & Trust Company, Will T. Gordon, Agent, and keep a strict account of expenditures and vouchers showing items paid, which will be subject to inspection at all times.

Mr. Barrows representing the American Analine & Chemical Company and Mr. Squares representing the DuPont Company are here now determining how many classes and sub-classes of patents shall be abstracted at the expense of the Institute. Mr. Barrows discussed with me Saturday the advisability of disclosing the plan of the proposed purchase to the Federal Trade Commission and also to the various parties holding license under the Federal Trade Commission, for the purpose of enlisting their cooperation.

I have advised Mr. Barrows positively against such action. Mr. Palmer, Mr. Hoguet, and myself are fully informed as to the Federal Trade Commis-

sion's attitude, and I am positive that any discussion between Mr. Barrows or other members of the Institute and the Federal Trade Commission or its licensees will not have a good effect.

Mr. Hoguet was very positive Saturday in instructing me as to the direction of this work, which is being done primarily for the Alien Property Custodian and after Mr. Barrows and Mr. Squares have determined the classes of patents to be searched at the expense of the Institute, the only further service I could suggest for them for the time being is the work of abstracting, should they see fit to engage in such work.

Very truly yours,
WILL T. GORDON,
For Director,
Bureau of Investigation.

WTG:LBF

DEFENDANT'S EXHIBIT No. 4.

Order by Frank L. Polk dated December 4, 1918.

(Note: Same as Plaintiff's Exhibit No. 728 and not reprinted here. See Record, Exhibits, Volume III, page 1874.)

DEFENDANT'S EXHIBIT No. 4-A.

Order by Frank L. Polk dated January 11, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-A and not reprinted here. See Record, Exhibits, Volume III, page 1876.)

DEFENDANT'S EXHIBIT No. 4-B.

Order by Frank L. Polk dated February 26, 1919.

(Note: Same as Plaintiff's Exhibit No. 91, Plaintiff's Exhibit No. 728-B and Defendant's Exhibit No. 3 to Answer, and not reprinted here. See Record, Volume I, page 551.)

DEFENDANT'S EXHIBIT No. 4-C.

Order by Frank L. Polk dated March 24, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-C and not reprinted here. See Record, Exhibits, Volume III, page 1882.)

DEFENDANT'S EXHIBIT No. 4-D.

Order by Frank L. Polk dated March 24, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-D and not reprinted here. See Record, Exhibits, Volume III, page 1886.)

DEFENDANT'S EXHIBIT No. 4-E.

Order by Frank L. Polk dated April 5, 1919.

(Note: Same as Plaintiff's Exhibits No. 94 and No. 728-E, and Exhibit 4 to Defendant's Answer, and not reprinted here. See Record, Volume I, page 554.)

DEFENDANT'S EXHIBIT No. 4-F.

Order by Frank L. Polk dated April 5, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-F and not reprinted here. See Record, Exhibits, Volume III, page 1895.)

DEFENDANT'S EXHIBIT No. 4-G.

Order by Frank L. Polk dated April 8, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-G and not reprinted here. See Record, Exhibits, Volume III, page 1896.)

DEFENDANT'S EXHIBIT No. 4-H.

Order by Frank L. Polk dated April 18, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-H and not reprinted here. See Record, Exhibits, Volume III, page 1899.)

DEFENDANT'S EXHIBIT No. 4-I.

Order by Frank L. Polk dated May 7, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-I and not reprinted here. See Record, Exhibits, Volume III, page 1903.)

DEFENDANT'S EXHIBIT No. 4-J.

Order by Frank L. Polk dated May 28, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-J and not reprinted here. See Record, Exhibits, Volume III, page 1906.)

DEFENDANT'S EXHIBIT No. 4-K.

Order by Frank L. Polk dated May 28, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-K and not reprinted here. See Record, Exhibits, Volume III, page 1908.)

DEFENDANT'S EXHIBIT No. 4-L.

Order by Frank L. Polk dated May 28, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-L and not reprinted here. See Record, Exhibits, Volume III, page 1914.)

DEFENDANT'S EXHIBIT No. 4-M.

Order by Frank L. Polk dated June 10, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-M and not reprinted here. See Record, Exhibits, Volume III, page 1917.)

DEFENDANT'S EXHIBIT No. 4-N.

Order by Frank L. Polk dated June 18, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-N and not reprinted here. See Record, Exhibits, Volume III, page 1919.)

DEFENDANT'S EXHIBIT No. 4-O.

Order by Frank L. Polk dated June 24, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-O and not reprinted here. See Record, Exhibits, Volume III, page 1920.)

DEFENDANT'S EXHIBIT No. 4-P.

Order by Frank L. Polk dated July 8, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-P and not reprinted here. See Record, Exhibits, Volume III, page 1922.)

DEFENDANT'S EXHIBIT No. 4-Q.

Order by Frank L. Polk dated July 8, 1919.

(Note: Same as Plaintiff's Exhibit No. 728-Q and not reprinted here. See Record, Exhibits, Volume III, page 1924.

DEFENDANT'S EXHIBIT No. 5.

COPY OF AGREEMENT OF SETTLEMENT—FARBWERKE-HOECHST CO. AND HERMAN A. METZ WITH DERMATOLOGICAL RESEARCH LABORATORIES, UNINCORPORATED; JAY FRANK SCHAMBERG, M. D.; GEORGE W. RAIZISS, PH. D.; AND JOHN A. KOLMER, M. D.

Whereas Dermatological Research Laboratories, unincorporated (hereinafter designated for convenience and easy reference "The Laboratories") did, without protest of Farbwerke-Hoechst Co. (hereinafter designated for convenience and easy reference "Hoechst Co."), compound and sell a drug known as arsenobenzol for remedy, cure, and protection of and against syphilis; and

Whereas Jay Frank Schamberg, M. D., because of his professional standing, his scientific contributions to medicine and his leadership in dermatological research work, was selected the director of The Laboratories; and

Whereas Farbwerke, vormals Meister Lucius and Brüning, Hoechst on the Main (hereinafter designated for convenience and easy reference "The Foreign Corporation") is a foreign corporation, duly organized and existing under the laws of Germany, Europe, and is the owner of, or the patentee named in, certain patents of the United States, issued March 7, 1911, and November 11, 1913, and numbered 986,148 and 1,078,135, respectively, for a specific for syphilic and process of making the same, which specific is known as diamino-dioxyarsenobenzol, and when manufactured by or under instruction by The Foreign Corporation is known by the trade-mark "Salvarsan" and "606" and "Neosalvarsan"; and

Whereas Herman A. Metz (hereinafter designated

for convenience and easy reference "Mr. Metz") is the president of Hoechst Co. and represents that he is the sole owner of all the capital stock issued by Hoechst Co. and that Hoechst Co. is a domestic corporation, duly organized and existing under the laws of the State of New York, and is solvent and has no indebtedness, and that The Foreign Corporation has assigned to Hoechst Co. the sole and exclusive right of exploitation in the United States of America of salvarsan, and that Hoechst Co. is the sole licensee for the United States and Canada for salvarsan and for other modern medicinal preparations of The Foreign Corporation; and

Whereas Mr. Metz and Hoechst Co. have requested The Laboratories to discontinue the compounding and sale of arsenobenzol and to sell to their nominee about 12,000 ampouls of arsenobenzol now held in stock by The Laboratories; and

Whereas The Foreign Corporation and Hoechst Co. claim that the manufacture of arsenobenzol is an infringement of the said patents and other patents, recipes, and processes owned by them, and have demanded damages and an accounting of the profits arising from the sales of arsenobenzol, but which claim and the validity of which patents The Laboratories do not admit and which demand The Laboratories have refused; and

Whereas, at the request of Hoechst Co. and Mr. Metz, The Laboratories have dismantled that part of their laboratory which was constructed specially for the manufacture of arsenobenzol; and

Whereas Hoechst Co. and Mr. Metz have requested The Laboratories to disclose the names and furnish a list of the druggists and supply houses to whom The Laboratories have sold arsenobenzol and of the amount of such sales, which request The Lab-

oratories has agreed to grant, provided said list be a part of, and not a prerequisite to, said settlement; and

Whereas the parties hereto are desirous of settling all and every the differences, claims, demands, and controversies between them, Hoechst Co. and the Foreign Corporation and Mr. Metz being represented in said settlement by Messrs. Gifford & Bull, their attorneys at law, and The Laboratories and Drs. Jay Frank Schamberg, George W. Raiziss, and John A. Kolmer being represented by Messrs. Ira Leo Bamberger and Sidney Lowenthal, their attorneys at law.

Now therefore, in consideration of the premises and of the sum of $1 to each of the parties hereto paid by the other of them, at and before the ensealing and delivery of this agreement, the receipt whereof is hereby acknowldged, Hoechst Co. for itself, its successors, and assigns, and Mr. Metz for himself, his legal representatives, and assigns, as parties of the first part, and The Laboratories for itself, its successors, and assigns, and Drs. Schamberg, Raiziss, and Kolmer for themselves, their and each of their legal representatives, and assigns, as parties of the second part, promise and agree to and with each other in manner following that is to say:

1. The Laboratories and Drs. Schamberg, Raiziss, and Kolmer shall not and will not, during the life, term, or nonsuspension of said patents or either of them, either jointly, severally, individually, or directly or indirectly, except as hereinafter provided in paragraph 2, continue the compounding, preparation, or sale in the United States of America of arsenobenzol.

2. The Laboratories shall have the right to compound arsenobenzol for the purposes of experiments in Dr. Schamberg's laboratory and also for use only on charity patients, without charge for medicine or

service in the hospital clinic of Dr. Schamberg, as long as said Dr. Schamberg is in charge of said hospital clinic. But the provisions of this paragraph are limited to one laboratory and one hospital clinic at a time.

3. Dr. Schamberg shall also have the right to use in his personal private practice arsenobenzol compounded by The Laboratories.

4. The Laboratories shall, and hereby does, sell to said nominee, and said nominee shall, and hereby does, buy from The Laboratories the said ampules of arsenobenzol, about 12,000 in number, at the price of $1.50 per ampule of 0.6 grams, and $1.20 per ampule of 0.4 grams, and Hoechst Co. agrees and guarantees that said nominee shall and will pay on or before January 1, 1917, to The Laboratories $1.50 per ampule of 0.6 grams and $1.20 per ampule of 0.4 grams for said ampules of arsenobenzol, about 12,000 in number, upon delivery thereof.

5. Hoechst Co. shall and will furnish to The Laboratories, at the cost price to it hereinbefore mentioned, such a reasonable number of said 12,000 ampouls purchased by said nominee, as aforesaid, as Dr. Schamberg may require for use upon charity patients in his hospital clinic.

6. The Laboratories shall and will, at the request of Mr. Metz or of Hoechst Co., manufacture for sale and sell to them or their nominee, Arsenobenzol at a price, and in such quantities as may hereafter be mutually agreed upon.

7. The Laboratories shall and will, immediately upon the execution and delivery of this contract, and as a part of and not a prerequisite to the said settlement herein provided, furnish a list of the druggists and supply houses to whom The Laboratories have sold Arsenobenzol and of the amount of Arsenobenzol

so sold, and shall and will, at request, supply further names, if any, and correct any errors or omissions upon the discovery thereof.

8. Hoechst Co. and Mr. Metz do, for themselves, jointly and severally, and for their and each of their legal representatives and assigns, remise, release, and forever discharge The Laboratories and Drs. Schamberg, Raiziss, and Kolmer, the estate of P. A. B. Widener, deceased, Joseph E. Widener, Polyclinic Hospital of Philadelphia, and Philadelphia Polyclinic and College for Graduates in Medicine of Philadelphia, and each of them, their and each of their heirs, executors, administrators, successors, and assigns, of and from all manner of action and actions, cause and causes of action, suits, debts, dues, sums of money, accounts, reckoning, bonds, bills, specialties, covenants, contracts, controversies, agreements, promises, variances, trespasses, damages, judgments, extents, executions, claims, and demands whatsoever, in law or in equity, which against them or either of them Hoechst Co. and Mr. Metz or either of them ever had, now have, or which they, or either of them, or their or either of their legal representatives, successors, or assigns, hereafter can, shall, or may have, for, upon, or by reason of any matter, cause or thing whatsoever from the beginning of the world to the day of the date of these presents.

This release is also intended to cover and operate, and shall and will cover and operate as such in favor of any customers of The Laboratories, as against any claim arising from any dealings by or of such customers in any product heretofore obtained from The Laboratories.

9. Hoechst & Co. shall and will, on demand, pay all and every the claims which may be made or judgments which may be recovered by any person or persons having any interest in said patents, against The

Laboratories and Drs. Schamberg, Raiziss, and Kolmer, or any or either of them, for an infringement of the said patents or for profits or damages or other causes arising out of the compounding and sale of Arsenobenzol and also all counsel fees, costs and expenses connected with or arising out of said claims, or in actions in which the said judgments are obtained, and hereby guarantees to hold The Laboratories, its successors and assigns, and Drs. Schamberg, Raiziss, and Kolmer and each of them, their and each of their representatives and assigns, free and harmless of and from all expenses and losses of every kind, by reason of claims which may be made by any person or persons having any interest in said patents, and by reason of the judgments which may be recovered by any person or persons having any interest in said patents, for an infringement of said patents or for damages sustained by them or otherwise.

In witness whereof Farbwerke-Hoechst Co. and Herman A. Metz, as parties of the first part, and Dermatological Research Laboratories, unincorporated, Drs. Jay Frank Schamberg, George W. Raiziss, and John A. Kolmer, as parties of the second part, have hereunto set their hands and seals at the city of New York, in the Borough of Manhattan, on the 5th day of December, 1916.

[Seal.] FARBWERKE HOECHST CO.,
By H. A. METZ, *President.*

Attest:
ALBERT H. HEIN, *Secretary.*

HERMAN A. METZ, [L. S.]

DERMATOLOGICAL RESEARCH LABORATORIES,
UNINCORPORATED. [L. S.]
By JAY FRANK SCHAMBERG, *Director.*

JAY FRANK SCHAMBERG, [L. S.]
JOHN A. KOLMER, [L. S.]
GEO. W. RAIZISS, [L. S.]

STATE OF NEW YORK,
City of New York, county of New York, ss:

On this 6th day of December, 1916, before me personally came Herman A. Metz, to me known, who, being by me duly sworn, did depose and say that he resides in the city of New York and county of New York; that he is the president of Farbwerke-Hoechst Co., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

[Seal.] H. IRVING GORDON,
Notary Public, Kings County.

COUNTY OF NEW YORK,
City of New York, State of New York, ss:

On this 6th day of December, 1916, before me personally came Herman A. Metz, to me known, and known to me to be the individual described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same.

[Seal.] H. IRVING GORDON,
Notary Public, Kings County.

COMMONWEALTH OF PENNSYLVANIA,
County of Philadelphia, city of Philadelphia, ss:

On this 5th day of December, 1916, before me personally came Jay Frank Schamberg, to me known and known to me to be the director of Dermatological Research Laboratories, unincorporated, and the per-

son who executed the foregoing instrument, and he duly acknowledged to me that he executed the same as director of said Dermatological Research Laboratories, unincorporated.

[Seal.] ROBT. B. MCCONNELL,
Notary Public.

COMMONWEALTH OF PENNSYLVANIA,
County of Philadelphia, city of Philadelphia, ss:

On the 5th day of December, 1916, before me personally came Jay Frank Schamberg, George W. Raiziss, and John A. Kolmer, to me known and known to me to be the individuals described in and who executed the foregoing instrument, and they duly severally acknowledged to me that they executed the same.

[Seal.] ROBT. B. MCCONNELL,
Notary Public.

Prothonotary's certificate as to notary public. Prothonotary's seal.

DEFENDANT'S EXHIBIT No. 6.

Agreement Between Dermatological Research Laboratories, Dr. Jay Frank Schamberg and Dr. Geo. W. Raiziss, and Herman A. Metz, Dated June 8, 1918.

In view of the situation concerning arsphenamine (salvarsan and arsenobenzol) brought at the conference in the Hygienic Laboratory in Washington on June 7, 1918, the undersigned agree to draw up a contract for co-operation in the production of arsphenamine along the lines of the following preliminary agreement. In case of disagreement between the manufacturers concerned in regard to the terms of

this agreement decision shall be rendered by the witness at the consultation with a representative of the two parties concerned.

1. The Dermatological Research Laboratories, through Drs. Schamberg, Kolmer and Raiziss and others, having expert knowledge and experience concerning the manufacture of arsphenamine of a minimum and safe degree of toxicity agree to place their knowledge and experience at the service of Mr. H. A. Metz and his laboratories without unnecessary delay and in a sincere effort to bring his product up to the standards demanded by the Government without delay, in such a way, however, that the manufacturing of arsphenamine of the Dermatological Research Laboratories shall not be crippled or interfered with. To accomplish this, Dr. Raiziss will, without delay, arrange his management of the manufacturing plant in such a way as to be in a position to give time and attention to the task of improving the product of the Metz Laboratories.

2. In return for this valuable assistance, rendered by the Dermatological Research Laboratories, Mr. Metz will agree for himself, that the companies in which he is interested and his assignees,

(a) In the event that the Treaty of Peace should for any cause nullify the license of the Dermatological Laboratories to manufacture arsphenamine as at present, these laboratories under the trusteeship of Drs. Schamberg, Kolmer and Raiziss or their successors, will be permitted to continue to manufacture and sell arsphenamine to the extent of a minimum of 3,000 ampoules of 0.6 grams per week, and not to exceed 10,000 tubes per week or 10% of the needs of the country in arsphenamine (or its derivatives), in case Mr. Metz or any of his companies or assignees should

have control of the German rights in any way after the Treaty of Peace has been signed.

(b) In the event that the Treaty of Peace does not nullify the license of the Dermatological Research Laboratories to manufacture arsphenamine after the war or in the event that Mr. Metz is not in a position to guarantee to the Dermatological Research Laboratories the right to manufacture arsphenamine after the war to the extent indicated in paragraph a, Mr. Metz and his laboratories for the valuable services received will pay the Dermatological Research Laboratories a royalty on the manufacture of salvarsan under license from the Federal Trade Commission for the duration of the war.

(Sgd.) DERMATOLOGICAL RESEARCH LAB.

(Sgd.) JAY FRANK SCHAMBERG, *Directors,*

(Sgd.) DR. GEO. W. RAIZISS.

(Sgd.) HERMAN A. METZ.

Witnessed by

JULIUS STIEGLITZ.

Philadelphia, June 8, 1918.

*5 cents on all ampoules sold to Government at $1 or less during war, and 10 cents on ampoules sold over this amount.

DEFENDANT'S EXHIBIT No. 7.
Article in Journal of American Medical Association of March 30, 1918.

TOXICITY OF THE AMERICAN-MADE ARSPHENAMIN (SALVARSAN)

REPORT OF CASES

JAMES C. SARGENT, M.D.

MILWAUKEE

At the outbreak of the world war the original German-made salvarsan practically ceased being marketed in America as well as in France and England. The demand for the preparation had already assumed massive proportions. The natural result of this unsupplied demand was the manufacture of similar, if not identical, products by various concerns. Diarsenol, arsenobenzol, arsenobenzol "Billon" and other preparations were soon marketed as its substitute. Recently a preparation has appeared under the trade name of "Salvarsan," (arsphenamin) ostensibly manufactured in this country under the direction of the Farbwerke-Hoechst Company and by the process employed in the manufacture of the old German-made salvarsan.

Taking advantage of the large syphilitic clinic at the Marquette University School of Medicine, I have been attempting to arrive at some conclusions as to the relative therapeutic value and toxicity of these different preparations. A paper outlining this work is in the writing.

Recently the dispensary has been able to obtain some of the new arsphenamin now being made in New York by representatives of the Farbwerke-Hoechst Company of Germany. Having this new shipment at

hand, I decided to give it a trial on five patients who had reported that day for an arsphenamin treatment. Three ampules, each containing 0.6 gm. of arsphenamin, were inspected and found not to be cracked. The contents of each was of the characteristic pale yellow color. The total of these ampules was dissolved in 225 c.c. of sterile water which had been distilled less than two hours before. After the arsphenamin was entirely dissolved, the solution was alkalized by the addition of a sufficient quantity of 15 per cent. sodium hydroxid to form and redissolve the precipitate. It might be said that this technic, together with that of the injection of the solution, was identical with that used in the administration of some 200 doses of salvarsan given in the past six months.

REPORT OF CASES

Case 1.—A young woman, with a recently suppressed secondary syphilis, had received five salvarsan treatments at intervals of two and three weeks without notable reactions. She was given 50 c.c. of the prepared solution (0.4 gm. of salvarsan) in one of the arm veins. As she was leaving the building she became cyanotic and fainted. She soon regained consciousness and began vomiting severely. When I saw her about fifteen minutes later she was very pale, had a fast, thready pulse, was still vomiting and was in a violent chill in spite of blankets. After an hour's rest she was sent home in an ambulance. She subsequently reported that she continued nauseated and chilled for about twelve hours.

Case 2.—A young man, suffering from an active hereditary syphilis, had received one injection of salvarsan the week before. No reaction followed. He was given 50 c.c. of the prepared solution (0.4 gm. of salvarsan). He walked to an adjoining room and was forced to sit down because of a sudden dizziness. He

became cyanotic, was nauseated, and hungered for air. His pulse rose above a hundred and was of little volume. After resting an hour, he was allowed to return home. He subsequently reported that he had a severe headache, was nauseated, and remained very chilly for four hours despite going to bed.

Case 3.—A small colored boy, with an active hereditary syphilis, had received one salvarsan treatment the week before without reaction. He was given 25 c.c. of the solution (0.2 gm. of salvarsan) and left the dispensary. His guardian subsequently reported that he appeared to have suffered no reaction.

As I was about to give the fourth injection, I was informed of the condition of Patients 1 and 2. Becoming alarmed, I tested a part of the remaining solution with dilute hydrochloric acid and found that the precipitate reformed on acidulation. Being satisfied that the solution was properly alkalized, I diluted it with freshly distilled and sterilized water so that 50 c.c. contained a fraction less than 0.3 gm. of salvarsan.

Case 4.—A middle aged man, suffering a late syphiloderm, had received an injection of salvarsan the week before without reaction. He was given 50 c.c. of the remaining solution (0.3 gm. of salvarsan). Arising from the table, he complained of dizziness and faintness; but after resting a half hour he decided to return home. He subsequently stated that he suffered only a slight headache for the following twelve hours.

Case 5.—A young man in the late primary stage of syphilis had received no previous treatment. The needle was introduced into the vein, and the solution allowed to run. After 30 c.c. (0.18 gm. salvarsan) had been injected, he began coughing, became cyanotic, and complained of air hunger. The injection was stopped. The pulse became rapid and thin. In spite

of blankets he continued in a violent chill for thirty minutes. After an hour his color returned and he was allowed to go home. He subsequently reported that he remained chilly, nauseated and with a bad headache for the following four hours. This patient had had a preliminary cathartic.

COMMENT

Having been convinced that these five cases alone were sufficient to give a very definite idea of the toxicity of the new American-made salvarsan (arsphenamin), I have abandoned its use. Realizing the wide reputation previously enjoyed by the old German-made product and the stimulus which that reputation is certain to give to the sale of the new American-made salvarsan, I have been constrained to make an early report of these cases, hoping to save others from my uncomfortable experience.

DEFENDANT'S EXHIBIT No. 8.

Hoechst a. Main, June 20, 1913.

Farbewerke vorm. Meister Lucius & Bruning,
Hoechst am Main.

My Dear Mr. Metz: I received your two letters of the 4th and 10th of this month.

As regards hydrosulfit, I can only explain to you once more that we invoice exactly according to the lowest market prices here, that we naturally deduct packing and freight from the duty invoice.

Your communications about Bayer interested us greatly. In the meantime I have also heard personally from Mr. von Boettinger, as you telegraphed to us, that Elberfeld have established a new Bayer Co., and apparently also a special company for the pharmacy

department; for the erstwhile process this new establishment will certainly not be of much use to them. The handing over of the papers to Dr. Hess seems to have been a real joke.

It is very interesting, that you now receive the samples of the competing factories on the part of the dyers for examination. I can nevertheless imagine that an uncomfortable situation may sometime arise for you because of it.

We are naturally not interested that hydro-blue or carbazol colors should be placed on the free list; would not, however, on our part come forth directly against Cassella; you will therefore on your part omit any direct work against Cassella. I also repeat, as I have already informed you in my communication of June 9, my opinion, that the best for all of us would be, if certain dyestuffs, including the alizarin dyes, would pay about 15 per cent. duty, and only indigo remains on the free list. I should consider it a great success were you successful in leading up to such a change in the tariff.

Mr. Hinrichs wrote us on the 9th of this month, and gave us once more, in an inclosure, his drawn-up agreement, which, however, contains nothing new. I answered him today, according to inclosed summary, and hope that he will now be able to take requisite measures. Against a deposit of the shares for us in England (perhaps at Speyer Bros. in London) we have naturally no objection; on the contrary, it would be, as you yourself rightly say, still more convenient for us to have the deposit in England.

Mr. Widemann was here recently, and journeyed away yesterday. I did not find him looking well, and had the impression that he was truly in need of a rest. I really heard nothing new from him.

With best greetings,

Yours respectfully,

DR. HAEUSER.

DEFENDANT'S EXHIBIT No. 9.

Farbwerke vorm. Meister Lucius & Bruning,
Hoechst am Main.

Hoechst a/M; May 14, 1913.

My Dear Mr. Metz: I received your letters of the 1st and 5th instant and extend my best thanks for the interesting news contained therein. In the interim I wrote you two letters on the 8th instant, copies of which I inclose herewith, and from them you will see that we at least desire to accede to your wishes. Should extraordinary difficulties present themselves, we will quickly overcome them. A trip across the water right now I would not relish, but if it can not be otherwise arranged, I will have to decide to do so. I believe, however, that I can correctly judge the situation over here, and that it is possible for me to reach the same conclusion as you have. In this regard you are perfectly right, that attention has been attracted to the activities of the chemical industry concerns, and that the American Government secures information regarding them.

I beg you to have patience with Hinrichs; he is rather peculiar, but on the other hand he is capable and dependable.

The other firms here are also agitated over the situation. We must allow each of them, even Kalle & Co., to do that which from the nature of their peculiar circumstances, they find the proper course to pursue. What concerns you and ourselves, if we agree upon the changes you propose, we at least set aside any ground for complaint.

With reference to the drawback as to our correspondence with Hinrichs, it is so arranged that it can be presented to the Government in unrecognizable shape, being in the nature of a private code, the neces-

sity of which I regret. Mr. Hinrichs writes us in his last letter of the 30th ultimo, if matters of interest are not received, that it is not necessary to produce such correspondence, but only receipts and such matters. Hinrichs, however, did not follow my wishes as to receipts, etc. Under these circumstances it appears to me that the most charitable and safest plan is not to induce Mr. Hinrichs to make use of the correspondence.

Your idea that Kuttroff remains with the native Elberfeld Co. in a certain clerical capacity does not meet with the approval of Messrs. Von Elberfeld and Von Ludwigshafen.

I can readily imagine that you are unusually busy in Washington now. The Congressional Record, which you were kind enough to send me, I will read with much interest. From it one can best picture the situation.

The Badische is naturally not much pleased that alizarin has to pay a duty of 10 per cent., whereas the indanthren and the remaining anthracenderivate must pay full duty. We trust, however, that you will be able to push through alizarins without any duty and have the duty on dyestuffs reduced. It would at any rate be very nice, though I can not really believe it possible, after we were so badly cut up by the revision of the tariff. I beg of you to forecast exactly the best results obtainable in delivering to your f. o. b. European ports.

For the kindness shown my wife by your sending her an invitation to attend the opening session of the House of Representatives, I thank you many times in her behalf.

With best wishes,

Yours sincerely,

DR. HAEUSER.

DEFENDANT'S EXHIBIT No. 10.

OFFICE OF
HERMAN A. METZ
122 HUDSON STREET
NEW YORK

May 9th, 1916.

Dr. H. F. Albert,
New York City.

My dear Dr. Albert:

Enclosed please find a clipping from the *Brooklyn Eagle* of May 6th, which may prove of interest to you.

Yours very truly,

(Sgd.) H. A. METZ.

DEFENDANT'S EXHIBIT No. 10-A.
Clipping From Brooklyn Eagle of May 6, 1916.

ONLY U. S. NEUTRALS ARE IN GREENWOOD, SAYS HERMAN METZ

EX-CONTROLLER IN PEPPERY TALK SAYS NO RED-BLOODED MAN CAN BE NEUTRAL.

SCORES THE WILSON REGIME.

"You're Dishonest If You Disagree With It," He Says—Russians in France?—"Bunk."

Herman A. Metz, former City Controller and former Congressman from Brooklyn, has become convinced that "the only neutrals in this country are in Greenwood Cemetery." Mr. Metz said this yesterday in the course of a discussion in which he paid his re

spects to the Wilson Administration, discussed a few of the international situations confronting this country and declared that the Fourth avenue subway, now creating a $60,000 deficit monthly, was still to give more definite proof that the former Public Service Commission had weighted the city with an old man of the sea. Mr. Metz also indicated that he would accept a nomination for Congress from Tammany Hall this fall.

Outstanding in the observations of Mr. Metz was a note of contempt for the Wilson Administration, whose bitterness can be only half revealed by the written report of it:

"What can you expect of an administration that calls you a lobbyist and says you are running a propaganda the moment that you express an opinion contrary to its views? Support the Administration and you're a true citizen, a great patriot! They'll call you down to Washington and put you on a pedestal and let the whole world know that you're with the Administration!

"You're Not Honest If You Disagree with the Administration."

"But you can't think differently from the Administration! That shows right away that you're not honest! My goodness, don't you know that the people at the head of the Administration are the only ones who know how to think right at the present moment! You're a lobbyist! You're not a true American! 'Gentlemen,' says the Administration to the world, 'just look at the horrible monster we have here. He doesn't agree with us at all. He dares to have an opinion of his own!' "

The former Controller had this to say as a sort of follow-up in voicing a mild objection to an Eagle editorial which had referred to his pro-German sympathies.

"Why do they keep on telling about my German sympathies?" he asked. "I'm not a German; I'm an American. I was born in America, and that's where my sympathies are. That my thoughts are with Germany in this war doesn't blot my Americanism. What's the use of cataloguing with a German tag the men who have the courage of their convictions? You don't go around putting a pro-English tag on a man who spouts his head off for England, do you?

"Let's all think as we want to in this war. A man can be for England and be respected for it; he can be for France and be respected for it, and he can be for Germany and be respected for it. But that's no reason why he should be classed as an Englishman, a Frenchman, or a German. It isn't right to identify him in the public mind in any such way.

"No Red-blooded Man Can Possibly Be a Neutral."

"But they'll tell you down at Washington that you ought to be neutral. Neutral? The only neutrals I know of in this country are in Greenwood Cemetery. No man with red blood in his veins can possibly be neutral—he's got to feel with his heart for one or other of the combatants. He's not a man if he doesn't. So why should they cast you into the realms of outer darkness if you have an opinion of your own and stand up for it?"

And Mr. Metz paid his compliments to the Administration in a way that indicated he had a very special grievance in this particular. He went on:

"It used to be, when I was in Congress, that I received letters and telegrams from scores of people, telling me what they thought on certain issues that were up for consideration. Sometimes people didn't agree with me and I was glad of it, because it made me stop and think and, occasionally, I'd find reason to change my views. But what are you going to do about it nowadays?

"Send a telegram or a letter down to Washington and right away they'll start an inquiry. They'll want to know who put you up to sending the message and, whose money paid for it and a lot of things like that. Join a couple of thousand people in sending telegrams of protest, and where do they put you? Why, you're a traitor! You've lent yourself to the machinations of some country's secret agents!

The Russians in France Were Men of Russia Living There, Assembled to "Fool the Reporters."

"Oh—what's the use I've still got an opinion of my own and I'm proud to express it. I've talked about this war several times, and everything I've said has turned out just as I predicted it. I said Italy would cut a sorry figure, and Italy has. Where in the war could you find anything less important than the part Italy has played? And Russia? Russia has the men, but she hasn't got the soldiers. Just imagine how foolish that stuff is that's coming over from France about the Russian troops at Marseilles! Can any sane man think that they were shipped to France from Russia? Why, they're Russian servants in France, assembled at Marseilles to fool the correspondents. Why under the sun would Russia transport troops away around and down into Marseilles? Bunk—all bunk—and most of the war news is still being

written in the bar of the Savoy Hotel in London, as I told you months ago.

"The only thing that hasn't come out is that 'Paris in sixty days or defeat' thing. I didn't mean that Germany must actually take Paris. Paris was figurative, and I stand by every one of my predictions, including that.

"There's one thing. I guess that's more than ever clear now. That's about England being glad to let everybody else do her fighting for her. And, in that connection, if there's a lot of people here who want to fight Germany, why don't they take the first train up to Canada? Canada'll take 'em. She'll outfit 'em and refund their carfares, I guess, and put 'em aboard the very first ship for the other side.

Metz is a Firm Believer in Preparedness.

"Nobody who wants to fight Germany need be left out in the cold. England's got room for all of them. But let them keep this country out of it. There are some people here who don't want to fight Germany, and who don't want to fight at all.

"As for me, I believe in preparedness. I believe in putting this country in a condition where she can look the whole world in the face and be unafraid of anyone. I believe in upholding the honor of America in every way. We can all do our duty in that without looking with suspicion on the men who sympathize with Germany or England or any other country that is at war.

"I haven't anything against England, you know. England has treated me very favorably. I haven't made one request of England that hasn't been granted. But what has galled me is that I've had to make the requests. It didn't do any good to appeal to my own

government. No, I had to go out and appeal on my own account. That's what hurt me.

"The only class I have anything against, I guess, is the professional German. Unfortunately, we have quite a number of them. They're about as useless and annoying as the professional Irishman or the professional Southerner, or the professional Westerner. It's easy enough to spot the professional German. As long as we know them and know what they are, why should we judge others by them? They don't count except as a bunch the country would be well rid of."

Says Fourth Avenue Subway Deficit Proves He Spoke the Truth

Turning from this Mr. Metz took up the Fourth avenue subway, the occasion being the attention recently called to it by Public Service Commissioner Whitney and his word that its operation was creating a deficit of $60,000 a month.

"I'm glad to see the opinions I expressed some years ago backed up now by such an authority," said the former City Controller. "The Fourth avenue subway should never have been built under the contract that controls its operation at present. I told the truth about it. It cost me a good deal. I said that it was a scheme of a lot of politicians, and that's what it was.

"The Fourth avenue subway should have been built under the Interborough offer. That offer called for the construction at the Interborough's expense, and provided for a connection with the present tube under the East River at South Ferry. It would have given a 5-cent fare from the Bronx to Bay Ridge. It was a real tri-borough route.

"And what did the old Public Service Commis-

sion do? They played a lot of politics, to discredit the McClellan administration—and let me tell you the policy of that administration was the most constructive the city has ever known—and we got this burden. And yet, they wonder that the tax rate is 2.08!

"It will be years and years before that Fourth avenue subway will pay. And remember the city has yet to meet the damages incurred in its construction. Goodness knows what they're going to be, either. More millions dumped into the hole the old Public Service Commission dug!

"A Lot of Fine Gentlemen, Those Former P. S. Commissioners.

"Oh, they were a lot of fine gentlemen, those former Commissioners! Let me repeat what I once said. Individually, they were as charming and intelligent a lot of politicians as you'd want to meet anywhere. Collectively, they were a calamity. They got together in solemn deliberation on this Fourth Avenue Subway and dug up a few things to win newspaper support. Then, supported by the newspapers, they went ahead and threw away the city's money. They have a lot of things to answer for, but the Fourth Avenue Subway is the worst."

DEFENDANT'S EXHIBIT No. 11.

New York, April 8, 1915.

Hon. JOSEPH P. TUMULTY,

White House, Washington, D. C.

MY DEAR MR. TUMULTY: Referring to the visit of the committee that called on you Tuesday, I am inclosing herewith, as requested, extracts from some of the letters from textile manufacturers which I showed you.

I received all told about 450 replies in answer to about 1,000 circular letters which I sent out, mainly to the cotton, wool, and silk-mills, calico printers, job dye houses (that is, those dyeing for mills who do not do their own dyeing), and to some extent to the paper, wall paper, leather, paint and printing ink, and other branches. I received approximately 270 replies giving definitely the number of employees in each mill which would be directly affected; a further 160 did not specify the number that would be out of work, but said they would be compelled to shut down within 30 to 60 days and discontinue operation. Those who gave the number totaled 260,000 employees. Assuming the other 150 to employ the same number of people, this would give an aggregate of approximately 400,000 people directly affected in those mills that replied.

As there are probably 1,500 to 2,000 plants of the kind to which I wrote in the various industries throughout the United States, it is easy to assume that probably 2,000,000 operatives will be affected directly, without considering at all those occupations or trades to which the output of the factories goes, and for which it is really the raw material; in other words, the cutters, garment makers, etc., and the jobbers, wholesalers, and retailers who handle the product all along the line until it finally reaches the ultimate consumer. Then, furthermore, we must consider that when the cotton mill shuts down it is no longer using cotton, nor the woolen mill or carpet mill using wool. Their supplies of machinery, machinery oil, coal, belting, and the thousand and one other items that enter into manufacturing, must also suffer in proportion.

Besides this the woolen or cotton mill is in many instances the only support of the town or village in which it is located. Every employee has the immediate members of his family depending upon him, and the mill's success or failure is reflected in the business of

the town, and when the mill is closed it does not take long for the mill population to scatter and seek new fields, which means disorganization immediately, and the necessity of reorganizing when operations are resumed. I know this is not a pleasant picture, but it is exactly what we are facing in the textile industry unless the supply of dyestuffs can be arranged for, and I fully realize how difficult it is to do anything definite promptly, even though conditions are so exceedingly serious.

After leaving you I had a talk with Mr. Secretary Redfield, who seems imbued with the idea that we are going to take up manufacturing in this country and has been "assured" by some people that they can do these things. I have no desire to reflect at all on Mr. Redfield's judgment, but these optimistic reports about what we are going to do here in regard to dyestuffs have caused enormous damage already. There have been practically no dyestuffs made in this country heretofore, excepting from raw materials or intermediate products imported from Germany. The basic raw material we have always had here, and after July 1 will have enough for all possible contingencies, viz., the benzol obtained from coke ovens. The next step is to treat the benzol with nitric acid, making nitrobenzol, which can also be done here, and that in turn yields the next step, aniline oil. Aniline oil is used for dyeing black and also for making certain very primitive and very fugitive colors in connection with betanaphthol and other intermediate products previously imported and which a number of people are "going to make," but so far nobody has made, except in a very crude form at one plant and for its use only. As a matter of fact, there are only three manufacturers of betanaphthol in the entire world, all in Germany. The product heretofore used here, a refined, pure product, containing no admixtures of other compounds, sold at

about 9 cents per pound, including 5 per cent duty, before the war. None has been imported since, in fact, no raw material or intermediate products, excepting in very limited amounts for specific purposes, have been allowed to leave Germany, probably for the reason that Germany did not desire to encourage manufacturing of colors to her own detriment. Very limited quantities came from England.

A good betanaphthol today would be worth $1 per pound if we had it, because it is absolutely necessary to get it for use with certain combinations. The equipment for turning out a ton or two a week would cost about $15,000 to install, provided one knows how to make it and has got a plant, and it is safe to say that nobody in the United States ever made it on a large scale, or can turn out anything but an impure and crude product. There were probably a million pounds a year imported before the war, used chiefly for making paints and printing inks in connection with paranitraniline and other intermediate products, and only three or four plants in Germany make or know how to make a good paranitraniline.

Both products are also used somewhat in calico printing and for making anilines. What it would take to build a plant or plants enough to supply our needs here in these two products alone I leave it to you to judge from the figures here mentioned. And so it goes all along the line.

Secretary Redfield stated that Germany did not have certain fundamentals. This is true only to a slight extent. She is short of toluol, which is used for explosives. She also is short of nitric acid. This, however, has been overcome by processes discovered by the Germans and a plant constructed through Government cooperation, which is probably now in operation.

There are a great many other colors, however,

such as indigo, alizarines, etc., and particularly the long line of fast "vat" colors, which are available, and if we could only get those that can be had, we need not bother much about those that can not be had.

Furthermore, the Secretary claimed that Germans would not allow stuff out. Every letter I have received so far indicates a willingness, if shipping facilities are offered, to make shipments. Letters received today, dated as late as March 18, from the plant I do most of my business with, at Hoechst a Main, state that they had received governmental permission to export goods ordered by us prior to March 1, including a great many medicinal preparations, such as about 100,000 tubes of salvarsan, 3,000 pounds antipyrine, and various other preparations, which we are very much in need of in this country, and on which there was an absolute embargo right along, and export permission granted only on special application in specific cases. Another firm, also large color manufacturers with whom I do business write me under date of March 18, that they had just received permission to send me 1,250 pounds of another pharmaceutical preparation which we are very short of, but they regret that there are no shipping opportunities, because the Holland-American Line has refused to take goods of German origin.

These goods having been made ready for delivery and permission for export having been obtained, I would try to have them sent from Bremen if it were not for the fact that most American vessels leaving Bremen and willing to take German goods, instead of coming over in ballast, insist upon being reimbursed under their time charter in case of detention in England. The Swedish steamers will not carry German goods, and apparently there is no other way of getting them out.

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Unfortunately, the shipping bill failed, and so we have no ships of our own on which we could take a chance. The Germans, of course, have no desire to allow their goods, whether dyestuffs or pharmaceutical products, to get into the hands of enemy countries, and if these goods should be seized by England and paid for in case of seizure that would be no satisfaction at all (even though I made a profit) to the mills here who are dependent upon the stuff I am bringing over. I can not consume it myself; I am not buying it for the sake of selling to England or any other country, but I am buying it for consumption in the United States by people who have been dealing with me for years, and any reparation or profit paid me for goods held on the way over would not reimburse those who have to do without them on this side or pay the wages of the help which is laid off for want of them. I am afraid that some one has been hypnotizing Secretary Redfield and others as to the simplicity and ease with which colors can be made in this country.

The plant I am interested in abroad cost about $50,000,000 to erect and is capitalized now for only $12,000,000. It employs about 8,500 people. There are two other plants of the same size, with a half-dozen smaller ones. It is fair to figure, therefore, that there are invested in the coal tar color and pharmaceutical plants in Germany three or four hundred million dollars, and probably 25,000 people are employed in all of the plants I refer to. But these plants supply the whole world with these products directly or indirectly. In the case of the branch factories erected by the Germans in Russia, England, and France, the intermediate products and raw materials to manufacture the finished products for use are obtained from the German plants.

It took the Germans 50 years to get to this point, and it will take us 20 years, with an exorbitant protective tariff, and then we would still be floundering, because it is more a matter of engineering and practice than it is of chemistry. It may be well to establish an industry, but while we are doing it what is going to become of the people working in the mills, which will simply be forced to shut down, because the German products are not available and can not be substituted? I know they are "discovering" things in the newspapers every day, but the people who do it have no conception of the quantities involved or what the requirements of this country are. It is safe to say that 3,000 tons a month of various colors, which is practically what we have been getting from Germany since the war started, and which has kept us going fairly well, would not be two-thirds enough to keep us running if our mills were busy and we were running full. This will give you some idea as to what the industries are up against.

I am not touching on medicines at all. Of most of these products we import there are probably three or four months' supplies here, but the same plants that are making dyestuffs and chemicals are the ones that are making most of these synthetic and highly organic products, which have practically replaced most of the old things in medicine. We can go back and do the same as we did before they were invented, but it is not hard to see what that means. Undoubtedly some steps should be taken later on to make us a little more independent in some matters, through legislation or otherwise, but those things are for the future. What we want now and what we have got to have is the stuff that is over there that can be had, if we have a right to get it, and so avoid the disaster that threatens us.

It may be all right for machinery men and others

to feel safe in their ability to control the markets of the world, but it stands to reason that if we control the markets in some directions it is because others are weak in those directions and, therefore, strong in others, and this makes the balance which makes for international trade or exchange.

The Germans happen to be strong in chemistry and they control the world in that. We have nowhere else to go for such products until this condition changes.

Yours very truly,
HERMAN A. METZ.

MR. GARVAN. I would like also to call the attention of the committee to Mr. Tumulty's reply, and the two letters which follow:

THE WHITE HOUSE,
Washington, April 12, 1915.

My DEAR MR. METZ. I have your letter of April 10 and thank you for sending me a copy of your letter to Secretary Redfield. I have noted it very carefully and shall bring it to the President's attention at the first opportunity.

Sincerely yours,
J. P. TUMULTY,
Secretary to the President.

Hon. HERMAN A. METZ,
New York City.

DEFENDANT'S EXHIBIT No. 12.

November 7,1914.

His Excellency, WOODROW WILSON,
President of the United States, Washington, D. C.

Sir: By advice of my counsel, A. C. Vandiver, Esq., of the firm O'Gorman, Battle & Vandiver, of this

city, I am placing before you, as well as before the honorables, the Secretaries of State, Treasury, and Commerce, the existing conditions under which the manufacturers of textiles and other articles requiring dyestuffs and chemicals are being supplied with these products imported from Germany.

The manufacturers of the United States, as well as those of every other country in the world, are practically dependent upon the German manufacturers for their supplies of dyestuffs and chemicals.

At the outbreak of the war, Germany placed an embargo upon the exportation of all products of this kind. The supply in the hands of importers in the United States was about sufficient to run our mills from six weeks to two months. In the meantime, through efforts of the Department of State and the German Ambassador, whose attention I called to this situation and the danger threatening American industries, the German Government was persuaded to raise the embargo and permit the exportation of these products to the United States.

After allowing two or three small shipments to come through a new embargo was declared by the German Government, which insisted, first, that vessels flying the American flag must be provided to transport these goods, and, second, that a guaranty must be provided by the United States that no goods would be exported to any country with which Germany was at war and that a bond be given guaranteeing against such exportation on the part of the importers, binding them and the consumers to whom they sold and at the same time prohibiting the resale of these goods to dealers who might in turn export or to manufacturers of similar products in the United States or elsewhere.

These were the conditions imposed by the German Government, and although the State Department,

through the ambassador at Berlin, offered to obtain guaranties from the importers, the embassy advised the department that these guaranties would not be sufficient, and that a guaranty by the Government would be necessary.

After consultation with the Acting Secretary of State and the Solicitor of the State Department, and with their approval, I placed the matter before Count von Bernstorff, the German ambassador, whereupon he telegraphed to his Government that there was no basis under our law permitting the United States Government to give or enforce such a guaranty; but that it would obtain, through me, from all importers a written guaranty that they would use every legal means to prevent exportation and a statement that they would agree to furnish any bond that the Government might prescribe.

In reply to this telegram Count von Bernstorff received official information from Berlin that the German Government considered the guaranties to be filed with the State Department through me to be satisfactory, but nevertheless deemed it necessary to require a bond, and that such a bond should be given to me personally.

I communicated this decision to the Department of State, and in the meantime had arranged for the charter of the steamer *Matanzas,* flying the American flag, to proceed to Rotterdam under ballast to bring over such allotments of dyestuffs and chemicals as might be released for export.

The American steamer *Sun,* due to leave on the 7th of November, is bringing the balance of the allotments, amounting to nearly 1,500 tons of dyestuffs and large quantities of cyanide and potash salts required by other industries, all released on the same conditions, except that cyanide may be exported to Mexico for use in the mines of Mexico.

The *Matanzas* left Rotterdam on October 28 with about 3,000 tons of aniline colors, alizarines, and indigo aboard.

I have since obtained from each of the importers for whom dyestuffs and chemicals are coming by either vessel a bond in such sum as will practically cover the invoice value of the goods they are about to receive.

Realizing, however, that many importers have contracts with dealers and consumers here, to which the manufacturers in Europe are not parties, and also that sales by importers only under the restrictions placed upon them by the German Government, might probably, under ordinary circumstances, constitute violations of our statutes bearing on such restrictions, I, therefore, as above stated, by advice of counsel, place the matter before you so that you and the various departments interested may be fully informed as to the conditions under which these goods have been released for export, and to state that there is no desire or intention on the part of any of the importers to violate in the slightest degree any of our statutes.

The conditions were complied with, with the sanction of the State Department, for the purpose of relieving the situation that threatened our textile and other manufacturing industries if the dyestuffs and chemicals had not been obtained.

The situation is further complicated by the fact that not more than an average monthly consignment from each manufacturer is to be allowed to come forward. This restriction, however, will not be serious if the channels through which goods from Germany can be obtained remain open.

I beg to impress upon you the fact that it is not so much a question of the value of these particular products themselves, nor the money involved in their importation and sale, as the enormous importance of them to the industries in which they are used, running

into thousands of millions annually in value and employing millions of men and women throughout the United States in the woolen, cotton, silk, leather paper, paint, printing ink, mining, agriculture, and every other industry requiring dyestuffs or chemicals.

Assuming that it were eventually possible to produce all these products in the United States, it would take several years to even prepare the plants necessary to produce the raw materials used in the making of them, so that even a temporary cutting off of the supplies from Germany for a few months would cause incalculable hardship and suffering throughout the United States.

It was for the purpose of obviating such a calamity that any condition within reason was acceded to which would insure obtaining the supplies needed.

I would not be justified, however, in continuing my efforts to relieve the situation, nor would any importers bringing goods over in the future, be justified in acceding to conditions that might at some future time be construed as a violation of our statutes, without apprising the various departments of the Government as to the reasons which made such action necessary under the existing extraordinary conditions now prevailing.

I have the honor to be, sir,

Yours respectfully,

HERMAN A. METZ.

DEFENDANT'S EXHIBIT No. 13.

Letter from Blank to Mr. Metz, dated Hoechst on the Main, August 5, 1915.

(Note: Included in Defendant's Exhibit No. 52 and not reprinted here. See Record, Exhibits, Vol. IV, page 2323.)

DEFENDANT'S EXHIBIT No. 14.

Letter from C. Blank to Mr. H. A. Metz, dated Hoechst on the Main, September 28, 1915.

(Note: Included in Defendant's Exhibit No. 52 and not reprinted here. See Record, Exhibits, Vol. IV, page 2351.)

DEFENDANT'S EXHIBIT No. 15.

Letter from C. Blank to Mr. H. A. Metz, dated Hoechst on the Main, November 12, 1915.

(Note: Included in Defendant's Exhibit No. 52 and not reprinted here. See Record, Exhibits, Vol. IV, page 2352.)

DEFENDANT'S EXHIBIT No. 16.

[TRANSLATION]

Höechst a/Main, March 30, 1914.

MY DEAR MR. METZ: I received your two favors of the 3d and 13th of this month and assume that in the meantime you received my letter of the 6th of this month. Your statements interest me greatly and have had my full attention in every detail.

The matter in regard to the fighting of the graft money conditions seems now, through the foundling of the Textile Alliance, to have found a certain ending, and it seems to me very proper that you immediately sign.

For also proper I consider your action in refusing the ideas of the United States Worsted Co. to bind yourself to a conventional penalty. Our position so far as the question of new organization you have

in the meantime learned out of my writing of the 6th of this month. I must say that the more I think about the matter the less I can see that with such a re-(new) organization, so far as the Sherman law comes into consideration, can anything be materially changed. Even a new company would have to stand in the same relation to us as is the case of the F. H. Comp. There exists the fact that we paid you $200,000, and that this payment, exactly as the Farbwerke-Hoescht Comp., the new company would have to give us certain guaranties. Everything has been done to avoid any violation of the Sherman law, and if bill No. 13860, which you mention, is passed, then it will be clear that even so far as indigo is concerned no violation against the Sherman law will have taken place.

(This refers to the fact that indigo was a patented product, and therefore the fixing of prices would be justified.)

So far as "extras" are concerned, I am of the opinion that this practically amounts to simply a transition period and that the same will rapidly go backward. At any rate, all our endeavors must be in this direction. Your idea that the paying out of extras in future could be done through a third party in cash, as for instance through your carpet mill at Worcester, I do not find happy (sound). You give yourself through this into the hands of such third party, who could at any moment turn against you. To me it seems the idea of increasing the provisions (commissions) of Gagnebin, Widmann, etc., much more right. Perhaps it would be advisable to adopt a mixed system between the raising of the commission for Widmann and your former procedure.

It is not quite clear to me what difference there would be in the situation if you, instead of one-half the dividends on the business of the Farbwerke, as

heretofore, in future only credit us with one-quarter. In reality at the present time you do not credit the half, but you credit (send) us only, after deducting the extras, the part remaining. This payment to us is purely your personal matter, has nothing whatever to do with the F. H. Co., and is nobody else's business. It is this, the compensation therefore we allowed a very considerable amount of about $300,000 for which you bought the shares back, to stand and that we let you privately participate in our business with a certain amount.

So far as our other agreements are concerned I have no objection to having you send these back; our entire relationship is really a confidential relationship, and it will be and must without agreements so continue in the future as in the past.

Regarding the charging of your account in your letter of March 3, page 5, I have to remark that it is not entirely clear, as in the past year, besides the $100,000 you also according to your letter of October 14, 1913, have kept back a further dividend of $50,000 for extras. As you do not mention these last $50,000 at all, so it seems to me that you already used this in the previous year for extras. Will you please confirm this? Your personal credit with the Farbwerke-Hoescht Co. has in the meantime also grown considerably, and it does seem necessary that you again bring this to a balance as soon as possible. I also wish very much that you might be saved against such losses like with the Finishing Co. in future.

From the correspondence I also see that the question of the payment of Hinrich's bill is not yet in order. It seems to me proper, as you at last suggest, that you pay the bill and charge it on extras.

I was glad to learn that the business is so far satisfactory. We will have to be satisfied that the profit on individual transactions will continue to get

smaller and that the loss can only be equalized through energetic work. With kindest regards.

Yours, etc.,

DR. HAEUSER.

P. S.—To Mr. Heim please extend my best wishes for his jubilee.—H.

DEFENDANT'S EXHIBIT No. 17.

Letter from Dr. Haeuser to Mr. H. A. Metz, dated Hoechst on the Main, July 31, 1913.

(Note: Included in Defendant's Exhibit No. 52 and not reprinted here. See Record, Exhibits, Vol. IV, page 2344.)

DEFENDANT'S EXHIBIT No. 18.

October 23, 1914.

HON. ROBERT F. ROSE,
Foreign Trade Adviser, Washington, D. C.

MY DEAR MR. ROSE: I inclose herewith the guaranty from Walter F. Sykes & Co., which please have filed with the rest.

From Count Bernstorff I learned today that the German Government is satisfied with the filing of the guaranties you now have and the agreement to give bond that no goods will be exported. The letter states, however, that the German Government thinks such bond essential, and that it should be given to me. I will, therefore, arrange a formal bond and submit it to Count Bernstorff for his approval and get each importer to sign it.

I am glad that the German Government is satisfied with this disposition of the matter.

Yours very truly,

H. A. METZ.

DEFENDANT'S EXHIBIT No. 19.

OFFICE OF HERMAN A. METZ,
New York, June 16, 1915.

HON. WOODROW WILSON,
White House, Washington, D. C.

MY DEAR MR. PRESIDENT: I know that you are conversant with the serious situation that confronts the textile and other industries of this country through the failure to continue the receipt of dyestuffs and chemicals. Efforts are being made to have the recent "Order in Council," allowing two shipments to pass, modified somewhat so that shipments will be allowed through on a basis that Germany will agree to.

In this connection an extract from a letter received from Justizrath Dr. Adolph Haeuser, president of the Verein zur Waehrung der Interessen der chemischen Industrie Deutschlands, in Berlin, and which is composed of all the dyestuff and chemical manufacturers in the German Empire, dated May 26, will probably interest you. It is as follows:

"I note that you have carried out your plan to organize an American Dyestuff Consumers' Association. We here are gladly ready to send dyestuffs to America, but we rest on the standpoint that we can not accept this as a favor or gracious act on the part of England, but that we can only send dyestuffs when England recognizes the right of America to receive

goods from us, and you send us cotton in exchange for such dyestuffs. This is also the standpoint of our Government.

"Any other standpoint would be unworthy of America or Germany. We are, of course, somewhat accustomed to seeing the American Government look at situations through two pairs of spectacles according to whether Germany or England is concerned in the question. England can simply deny American suggestions offhand and the American people yield with astonishing submission, although the entire carrying on of the war on the part of England and her allies depends entirely upon the good will of America. When Germany, however, does anything toward using her own good rights, the act is decried in America. I hope America will succeed in forcing England to stop interfering with commerce between Germany and America, and if so, you will find us only too glad to give you all the dyestuffs that you need."

I submit this to show you the situation as it is viewed by Doctor Haeuser, who at the present time represents officially the entire chemical industry, as president of the Berlin organization. This simply indicates that they have available goods in Germany which we need here, and which we can get if Germany is assured that the goods will not be taken off by England and that she will get cotton in return. I submit the extract to you for what it is worth, knowing that you appreciate the situation and assuring you that, so far as I am concerned, I fully appreciate the delicacy of the situation that confronts you.

Yours very truly,

H. A. METZ.

DEFENDANT'S EXHIBIT No. 20.

New York, March 6, 1915.

HON. WILLIAM J. BRYAN,
Secretary of State, Washington, D. C.

MY DEAR MR. BRYAN: Referring to my letter of yesterday regarding the dyestuff situation, I beg to say that I received the following cable this morning from Germany via Milan: "Latest developments make further shipments dyestuffs impossible." The cable was sent to me by Dr. Adolph Haeuser.

The same man that, as I have shown before, wrote the letters directing what Germany wanted in a tariff policy. He has now been made the head of them all —"the president of the Verein zur Wahrung der Interressen der Chemischen Industrie, Deutchlands, which is composed of the various chemical and dyestuff manufacturers of Germany, with headquarters in Berlin, and shows the attitude of German manufacturers of dyestuffs in the present crisis.

"It is safe to assume that they will take every precaution and go to any length to prevent their products reaching consumers of enemy countries, and unless some agreement can be reached to have the present condition modified, the manufacturers of this country will suffer as much as those of belligerent countries.

"Yours very truly,
H. A. METZ."

DEFENDANT'S EXHIBIT No. 21.

[TELEGRAM]

Washington, D. C.

HERMAN A. METZ, *New York:*

German Government informs department of wil-

lingness to permit first shipment of 150,000 ampules salvarsan subject to the following conditions: "Distribution to be effected by American representative of Farbwerke, Hoechst, under supervision of American Red Cross and American Government, to guarantee safe arrival. As soon as arrival and unobjectionable use of consignment is ascertained further exports will follow under similar conditions." British permit covers arrival in America but Red Cross supervision, and representative of Farbwerke Hoechst must be arranged. See or write me.

CHARLES A. HOLDER,
Foreign Trade Adviser.

DEFENDANT'S EXHIBIT No. 22.

H. A. METZ, President.

FARBWERKE-HOECHST COMPANY
PHARMACEUTICAL DEPARTMENT
SOLE LICENSEES FOR THE UNITED STATES AND CANADA
FOR THE
MODERN MEDICINAL PREPARATIONS
OF THE
FARBWERKE, VORMALS MEISTER LUCIUS & BRUNING
HOECHST-ON-MAIN GERMANY
111-113 Hudson Street
New York

April 26, 1917.

Drs. Brown & Jack,
Decatur, Ill.

Dear Sirs:

We are sending you by parcel post 4 ampules of Salvarsan 0.3 gram. We are sorry we cannot com-

ply with your request of April 20th, as our supplies of this product for distribution are practically exhausted.

We beg to call your attention to Dr. Schamberg's preparation of Arsenobenzol, which we have made available at $2.20 per ampule for the 0.4 gram and $2.50 per ampule for the 0.6 gram. We would greatly appreciate your co-operation in the use of this preparation and in this way help us to tide over the interval until our laboratories for the production of Salvarsan are in operation. This we expect to be in about six weeks.

Thanking you very kindly for your order, we beg to remain,

Very truly yours,
FARBWERKE-HOECHST COMPANY,
PHARMACEUTICAL DEPARTMENT,
(Sgd.) J. H. MARTIN.

JHM/P

DEFENDANT'S EXHIBIT No. 23.

OFFICE OF HERMAN A. METZ,
New York, March 14, 1919.

Dr. G. W. McCOY,
Director Hygienic Laboratory, Public Health Service, Washington, D. C.

MY DEAR DR. McCOY: I wrote to the Federal Trade Commission today in regard to the application of the Massachusetts State Department of Health for licenses. I also protested against a license being granted to the New York State Board of Health. I feel in doing this I am justified in the position I take and I would like to hear from you whether you favor the various State boards making their own product or not. Personally my experience with the New York City Board of Health when I was comptroller satis-

fied me that it was a very unfair competition against private enterprise.

Doctor Myers is now with us and I want you to feel that his services or any information he has or may gain while with us is at the disposal of your laboratory as heretofore, and that you need not hesitate to call upon him or us at any time it can be of any service to you, even if you may want him to come to Washington and remain for a while at your laboratory.

Yours very truly,

H. A. METZ.

DEFENDANT'S EXHIBIT No. 24.

320 McGill Building,
Washington, D. C.,
October 24, 1922.

My dear Colonel:

I am enclosing herewith a statement. You understand how I am situated financially. I explained to you that it is necessary for me to have the money at this time.

Taking over your work entailed great sacrifice on my part, and you, of course, are not willing that I should endure any further hardship.

It is absolutely necessary that I receive a check from you by return mail.

Very truly yours,

(Sgd.) EDWARD W. DEETERS.

EWD-GEB

DEFENDANT'S EXHIBIT No. 24-A.

Washington, D. C.,
October 23, 1922.

I, Edward W. Deeters hereby submit to Mr. H. A. Metz my bill for fees and expenses incurred by me in securing information and affidavits to be used by Senator George H. Moses of New Hampshire, in the case of the Dye Embargo as per agreement between Mr. Metz, Senator Moses and myself, made in New York City, N. Y. in October 1921.

To wit:

1. That all information, evidence, or affidavits secured by me should be used by Senator Moses and turned over to him or other persons designated by him.

2. That Mr. H. R. Metz take charge of the financial part of this agreement, defraying all fees and expenses incurred, by me.

EXPENSES

Personal fee for services rendered	$7,200.00
Traveling expenses	453.00
Clerical help	1,000.00
Special expenses (Securing affidavits; maintenance and traveling expenses of persons making affidavits.)	
Affidavit No. 1	1,429.00
Affidavit No. 2	1,163.00
Affidavit No. 3	447.00
Affidavit No. 4	942.00
Affidavit No. 5	1,319.00
Affidavit No. 6	812.00
Total	$14,765.00
Received on account	5,000.00
Balance due	9,765.00

DEFENDANT'S EXHIBIT No. 25.

(Cut) Cable Address
E. L. WESTON, MANAGER "RALEIGH, WASHINGTON"

THE RALEIGH
EUROPEAN PLAN
ABSOLUTELY FIREPROOF

Washington, D. C., Sept. 6th, 1921.

Mr. C. Cyril Bennett,
1133 Broadway, N. Y. C.

My Dear Bennett:

I saw Mrs. Gold today as you requested and she showed me your letter and a letter she wrote to Alien Property Custodian Miller asking for the information you desired. The letter to Miller she sent to Concord, N. H. for Senator Moses signature. She said there was nothing that could be done until she received a reply from the letter addressed to Miller. She asked me to remind you of the National Theatre and that you would know what she referred to.

I see by today's issue of the Daily News Record that there will be a meeting on Sept. 15th at the Hotel Pennsylvania of dye manufacturers to discuss some import restrictive plans as effective as a selective embargo. I am planning to be in New York to attend the meeting.

The situation here is exactly the same as it was last week.

With best wishes,

As ever,
(Sgd.) E. L. PICKERELL.

Will send you a set of the Hearings tomorrow.

DEFENDANT'S EXHIBIT No. 26.

302 McGill Building,
Washington, D. C.
March 22, 1923.

Colonel H. A. Metz,
122 Hudson Street,
New York City.

My dear Colonel:

Your friends from New York have been in Washington several days, made several persistent calls upon one of the parties who made affidavits and were rather persistent in getting the information from said party and were even so bold as to state that they would have said party subpoenaed to Wilmington to testify, if they did not get such information.

The duPonts have employed several members of the Chemical Warfare Service in the hope of gaining information which may be available to them. I am enclosing herewith copy of all information which I have in the hope that you may find use for same at Wilmington.

With kind regards,

Yours very truly,
(Sgd.) E. W. DEETERS.

EWD/AJK

DEFENDANT'S EXHIBIT No. 27.

Memorandum Enclosed With Letter From E. W. Deeters to H. A. Metz, Dated March 22, 1923. Defendant's Exhibit No. 26.)

MEMORANDUM:

During said conversation between Francis P. Garvan, Morris R. Poucher, statements were made by

Mr. Garvan that H. A. Metz bribed one of the Chemical Foundation chemists and gave this chemist a position for one month. During that period he tried to get information relating to Mr. Garvan and others who were connected with the Alien Property Custodian's Office at the time Mr. Garvan transferred the patents to himself.

Statements were made by the same gentlemen that H. A. Metz was a traitor to his country and that they had information in writing to prove that he was working with heart and soul for Germany and that he, Mr. Garvan, has stopped all shipments from Germany by order of the French Government.

Furthermore, that he, Mr. Garvan, had all information connected with the activities of C. C. Bennett and Mr. Means, relating to the information they were collecting for the Bosch Magneto Company and the Chemical Foundation, relating to the cases which the Department of Justice has now under investigation at Wilmington. They have copies of checks of C. C. Bennett for telephone calls and other expenditures in Senator Moses office. They did not state the nature of other expenditures.

They are trying to turn the machine gun on you. Do not let them catch you with your pants down.

DEFENDANT'S EXHIBIT No. 28.

Page 11,116 From Congressional Record of July 14, 1923. Enclosed With Letter From E. W. Deeters to H. A. Metz, Dated March 22, 1923. (Defendant's Exhibit No. 26.)

universities. How many reprints did you have made? Would it be possible for this bureau, without cost to it, to have 15,000 or 20,000 copies for distribution?

Yours sincerely,

P. P. CLAXTON, *Commissioner.*

E. I. DU PONT DE NEMOURS & Co.

DYESTUFFS SALES DEPARTMENT, TECHNICAL LABORATORY,
P. O. Box 518, Wilmington, Del., March 17, 1921.

MR. PHILANDER P. CLAXTON,
Commissioner of Education, Washington, D. C.

DEAR MR. COMMISSIONER: I was very much pleased to have your opinion of my little article on the "Education of the research chemist," and to know that you feel that it would be an advantage to have this given wider publicity.

I am looking into the matter of obtaining sufficient reprints to supply your needs, and will let you know if I can manage to obtain them. I could let you have 300 copies at once, if you could make use of them.

With kind regards, I am,

Yours sincerely,

R. E. ROSE.

DEPARTMENT OF THE INTERIOR
BUREAU OE EDUCATION,
Washington, March 21, 1921.

MR. R. E. ROSE,
P. O. Box 518, Wilmington, Del.

DEAR SIR: In the absence of Commissioner Claxton, who is in the Middle West, I am acknowledging your letter of March 17. Doctor Claxton will be back in Washington at the end of this week, and I will submit your letter to him at the first opportunity.

In the meantime I would suggest your sending the 300 copies of your article which you say you can spare, as I am sure he can make good use of them.

Yours sincerely,

THEO. HONOUR,
Secretary to the Commissioner.

E. I. DU PONT DE NEMOURS & Co.,
DYESTUFFS DEPARTMENT,
SALES DIVISION TECHNICAL LABORATORY,
Post-office Box 518, Wilmington, Del., May 11, 1921.

MR. PHILANDER P. CLAXTON,
Commissioner of Education, Washington, D. C.

MY DEAR COMMISSIONER: Under separate cover I forwarded to you 300 reprints of my article on the "Education of the research chemist" which you were kind enough to say you thought you could use to good advantage.

I have not yet been able to make arrangements to have a larger number printed, but I have not lost hope of being able to do so.

Yours very truly,

R. E. ROSE.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, May 13, 1921.

MR. R. E. ROSE,
P. O. Box 518, Technical Laboratory,
E. I. du Pont de Nemours & Co., Wilmington, Del.

MY DEAR MR. ROSE: I wish to thank you for the 300 reprints of the article "Education of the research chemist." Have these been sent to the libra-

ries of the better colleges and universities? If not, it occurs to me that this would be the best use to make of them.

Yours sincerely,
P. P. CLAXTON, *Commissioner.*

E. I. DU PONT DE NEMOURS & Co.,
DYESTUFFS DEPARTMENT,
SALES DIVISION, TECHNICAL LABORATORY,
Post-office Box 518, Wilmington, Del., May 17, 1921.

MR. PHILANDER P. CLAXTON,
Commissioner of Education, Washington, D. C.

DEAR MR. COMMISSIONER: With regard to the reprints of the article "The education of the research chemist," I have to inform you that these have not been sent to the libraries of the better colleges and universities. It seems to me that this would be a very excellent way of making use of them.

Yours sincerely,
R. E. ROSE.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, May 28, 1921.

MR. R. E. ROSE,
Post-office box 518, Wilmington, Del.

DEAR MR. ROSE: I take pleasure in advising you that we are now mailing the 300 copies of your article on "The education of the research chemist" to the libraries of the more important universities and colleges in the United States.

Yours sincerely,
L. A. KALBACH, *Chief Clerk.*

MR. MOSES. It is, perhaps, not without interest to note that of the eight letters written to the Bureau of Education by way of seducing it into this scheme five came from the Du Pont Co., one from the Chemical Foundation, one from the Alien Property Custodian, and one from Yale College.

MR. KING. Mr. President, I did not hear to whom those letters were sent.

MR. MOSES. These eight letters were addressed to the Bureau of Education.

FIVE DOLLARS FOR A SENATOR

As another example of the manner in which the dye makers have been able to hoodwink the public and to make use of governmental agencies for their private purpose, I desire to advert to the chemical industrial exhibit which occupied the boards at Rochester, N. Y.; Springfield, Mass.; Du Pont Hotel, Wilmington, Del.; Chicago; and Philadelphia, which found temporary shelter in both the Senate and House Office Buildings, which is now permanently installed at the National Museum, and which, in a condensed and highly idealized form, was paraded before the Shortridge committee. The exhibit as it appeared in this last-named place, Mr. President, constituted a demonstration of scientific processes such as never was on land or sea; and in one or more of the various forms in which this peripatetic pageant of plutocracy held sway in Washington its drawing power was so scant that professional pullers-in were employed to find sightseers at a price per head ranging as high as $5 apiece for a Senator—prices for Representatives and other public officials not quoted. I may add that I have in my possession an affidavit to this effect.

The origin of this exhibit, Mr. President, is shrouded in some mystery. The first authentic refer-

ence to it which I have been able to find is contained in a letter from O. E. Roberts, Jr., captain in the Chemical Warfare Service and head of the chemical relations section. Writing under date of January 16, 1920, to an officer of the National Aniline & Chemical Co., Captain Roberts refers to plans for an exhibit which he says are "rather up in the air," the Chief of Staff having refused to sanction the project as originally proposed. Captain Roberts, however, was hopeful, and promised to take the matter up again with a view to modifying his request for funds so that the general plan might be adopted. It appears, Mr. President, from the photostat copies of official correspondence which I have before me, that the higher ups in the War Department were wary in their use of public money for private propaganda; but, since no question of money has ever yet served to check the dye propagandists in their work, that obstacle was readily overcome. Funds were provided from various sources; and, in a later letter from Captain Roberts addressed to the chemical department of the Du Pont Co., he voiced his appreciation of "heartfelt cooperation," which he had received from that benevolent institution. Still later, writing to the secretary of the American Dyes Institute, Captain Roberts requested the approval of the institute and its authority—presumably meaning its funds—for the purpose of commencing the preparation of the second exhibit to be sent to Philadelphia; and on the same day, in order to emphasize the urgency of the situation, he telegraphed to Doctor Isermann, of the Chemical Co., of America, and to an official of the Du Pont Co., requesting like "authority." It is evident, Mr. President, that Captain Roberts is a resourceful person who believes in having more than one string to his bow.

Later, writing to an officer of the Calco Chemical Co., Captain Roberts expressed the workings of his

mind in connection with this exhibit. Indicating that since he did not know what agency would "stage" it in Phiadelphia, he admitted a prejudice in the matter and a feeling—

that the Chemical Warfare Service is by all means fitted to stage such an exhibit.

He argued that—

the publicity thus gained is not considered in the light of propaganda and would be received by the general public in a better spirit than if it was staged as an exhibit of the Dyes Institute.

Five days after this artful suggestion, Captain Roberts again took his ready pen in hand once more to write to the secretary of the dyes institute, and said:

We have gone ahead with the preparation of this exhibit and have obligated ourselves for several thousand dollars. It is therefore requested that as soon as convenient you mail a check to cover the amount of the exhibit, as stated to your committee for our use—

And, of course, Mr. President, he thanked his correspondent for an early reply.

Mr. President, we thus see the Bureau of Education and the War Department, two great agents of the Government, victimized by the dye makers of the country, and our public agencies turned to use in private propaganda. Small wonder that many well-meaning and impulsive people, including Senators, have been duped by what they thought to be their own Government advocating this vicious legislation; though the proof is here clear that it was merely the work of a corrupt and unscrupulous group of monopolistic profiteers.

Mr. President, if we turn now to the Summary of Tariff Information, so well thumbed by Senators

who have taken part in the debate on this bill, on page 79 we may read:

Previous to the war the domestic synthetic dye industry was restricted to assembling a limited number of dyes from intermediates imported from Germany. In 1914, 6,619,729 pounds of coal-tar dyes, valued at $2,470,096, were made from imported intermediates (aniline in part excepted).

During the war the failure of the foreign supply and the great needs of the domestic consumer, combined with great initiative on the part of the dye makers, gave rise to the rapid development of dye manufacturing. In 1917, 45,977,246 pounds were produced, increasing to 88,263,776 pounds in 1920.

DEFENDANT'S EXHIBIT No. 29.

Office of
HERMAN A. METZ
122 Hudson Street
New York

March 23rd, 1923

E. W. Deeters, Esq.,
#302 McGill Building,
Washington, D. C.

My dear Mr. Deeters:

Thanks for your favor of the 22nd with the enclosures, and also the memorandum which I received today.

Yours very truly,
(Sgd.) H. A. METZ.

HAM/CMR

DEFENDANT'S EXHIBIT No. 30.

(Note: This entire report offered in evidence by defendant. Portions thereof, as noted, were offered in evidence by plaintiff.)

(Certain portions of report not printed pursuant to stipulation of counsel.)

ALIEN PROPERTY CUSTODIAN REPORT

A DETAILED REPORT BY THE ALIEN PROPERTY CUSTODIAN OF ALL PROCEEDINGS HAD BY HIM UNDER THE TRADING WITH THE ENEMY ACT DURING THE CALENDAR YEAR 1918 AND TO THE CLOSE OF BUSINESS ON FEBRUARY 15, 1919

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

Note: This page, offered and admitted in evidence as

PLAINTIFF'S EXHIBIT No. 13.

REPORT OF ALIEN PROPERTY CUSTODIAN.

WASHINGTON, D. C., *February 22, 1919.*

DEAR MR. PRESIDENT: The trading with the enemy act, section 6, requires "that the President shall cause a detailed report to be made to Congress on the 1st day of January of each year of all proceedings had under this act during the year preceding. Such report shall contain a list of all persons appointed or employed, with the salary or compensation paid to each, and a statement of the different kinds of property taken into custody and the disposition made thereof."

I have the honor to submit a report of all proceedings had under said act during the year 1918 on the part of the Alien Property Custodian. I have deferred making the report beyond the time mentioned in the act in order to make it more nearly complete. At the end of the year 1918 I was in the middle of my selling program and many investigations of enemy property had not been completed. I think I am now able to say that practically all known enemy property in the United States has been taken over by me and is being administered according to the provisions of the trading with the enemy act. The more important of the properties which have been within the purview of our sales program have been disposed of. This report, therefore, is made as of the close of business on February 15, 1919. Full details with respect to all of the operations of this office appear in the following pages.

Respectfully submitted.

A. MITCHELL PALMER.

To the PRESIDENT,
The White House.

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CHAPTER I.

GENERAL.

The office of Alien Property Custodian was created by an act of Congress known as the trading-with-the-enemy act, approved October 6, 1917. Under this law and Executive orders issued in pursuance thereof, it became the duty of all persons in this country having the custody or control of any property of whatsoever nature belonging to, held for, or owing to an enemy person, to make report thereof to the Alien Property Custodian, by whom it was to be administered with all the powers of a common-law trustee. The act in defining enemy persons, following existing precedents, makes residence and not nationality the test of enemy character. All persons of whatever nationality, including partnerships and corporations, residing or doing business in the territory of enemy nations, or in the territory occupied by the armed forces of the enemy, are enemy persons. The act also puts allies of enemies in the same class with enemies, so that the Alien Property Custodian was empowered to demand and take over all property located or having its situs within this country which is owned by, held for, or owing to persons, partnerships or corporations resident or doing business in Germany, Austria-Hungary, Bulgaria, and Turkey, and in those portions of Belgium, France, Russia, and the Balkans which were occupied by the armed forces of the enemy at the time the property was reported to the Alien Property Custodian.

The right to demand and take over such enemy property is primarily vested in the President and need only be conveyed, transferred, assigned, delivered, or paid over to the Alien Property Custodian when the President, after investigation, shall determine it is

enemy-owned, and then only "if the President shall so require"; thus giving to the Executive the fullest discretion as to what enemy property shall be taken and what shall be left in the hands of its private custodians. The power and discretion vested in the President by the section of the act just referred to were delegated by Executive order to the Alien Property Custodian, and he has exercised the discretion lodged in him through various general rules and regulations, rather than in individual cases. Thus, the property of subjects of Bulgaria and Turkey, which countries are in the class of allies of the enemy, has not been demanded at all, except in a few cases of Bulgarian property whose particular circumstances seemed to demand its sequestration.

It was felt that the likelihood of unfair and even barbarous reprisal upon American citizens and American property which would have been inflicted by Turkey, if we had interfered with the Turkish property in this country, was sufficient reason for not disturbing the small amount of such property here. The property of American citizens resident in enemy territory was demanded only when the American's residence there had been so long continued, or his social and business relations with Germany were such as to indicate a preference on his part for living in Germany, rather than in his home country. Generally speaking, none of the property of American citizens has been taken over where such Americans were detained in Germany by circumstances or conditions beyond their control, preventing a reasonable exercise of their duty to return to their home country upon the outbreak of the war.

The right to take property of persons resident or doing business in the territory of allied nations occupied by the enemy has been sparingly exercised, and, so far as possible, only in the case of persons whose loyalty to the allied nations has been doubted. Doubt-

less there will be found cases where the property of persons in occupied territory, whose loyalty to the allied cause can not be questioned, has been taken over because of our inability to determine the facts. But this will cause no loss or expense and very little inconvenience to the owner, for when a person has lost his enemy character by reason of the enemy forces evacuating the territory of his residence, he may file a claim under the act and have his property restored to him. Similarly, American citizens may divest themselves of their technical enemy character by removing from enemy territory into neutral countries, or into the United States, and thereupon the Department of Justice, to which has been delegated the right to pass upon claims of non enemy persons, will take jurisdiction of their claims and upon a proper showing order their property to be released.

No property belonging to persons who were adjudged to be enemies solely on account of residence has been sold or authorized to be sold. The property of American citizens taken over because they were residents of enemy territory or territory occupied by the enemy, and the property of allied citizens and subjects demanded and received because they were resident or doing business in occupied territory, is being conserved and administered without thought or intention of sale or other disposition thereof.

The office of Alien Property Custodian was filled by the appointment of the President on October 22, 1917, so that the office has been in operation about 16 months. At the close of business on February 15, 1919, 35,400 reports of enemy property had been received. The property of each enemy person is treated in the office as a trust and administered by an organization which is built upon the general lines of a trust company. The number of separate trusts now being administered amounts to 32,296, and have an aggregate value of

$502,945,724.75. About 9,000 of these cases are covered by reports in which the administration has not yet reached the stage of valuation. When the entire number of trusts reported shall have been finally opened on the books and the readjustment of values consequent upon appraisal shall have been completed, it is safe to say that the total value of the enemy property in the hands of the Alien Property Custodian will reach $700,000,000.

The total amount of Government funds expended by the office of the Alien Property Custodian from the time of its organization to February 15, 1919, is about $1,000,000. Thus, it will be seen that the cost to the Government of administering nearly 33,000 trust estates of a total value of $700,000,000, located in every State in the Union and in every insular possession, is only about one-seventh of 1 per cent of the principal of the trust estates for a period of 16 months; a record of economical administration which has never been approached by any trust company in the world. In one sense, indeed, this office has cost the Government less than nothing, for through the efforts of the Alien Property Custodian unreported and concealed income and excess profits taxes have been collected from corporations and other taxpayers controlled by the enemy during the same period to the amount of $1,604,539.76. Without the activities of this office and the careful scrutiny and examination made of the affairs of all corporations with which the enemy had any connection, it is most likely that none of these taxes would have been revealed to the Government or collected by it. The amount thus collected through the efforts of the Alien Property Custodian is over 60 per cent greater than the entire cost of operating the office.

And, furthermore, after taking over enemy-owned corporations the Alien Property Custodian has endeavored, wherever he could consistently do so, to

make them a part of America's great fighting machine. He instructed his representatives to give the Government the first call on the products of these enemy-owned corporations with the result that he soon found himself supplying the Government with many of the most important things used in the war. It is indeed a suggestive thought that the principal German investments in this country were found to be in the production of the essentials of warfare.

When the armistice was signed the Alien Property Custodian was supplying the Government with magnetos for aeroplane and automobile motors, with cloth to make uniforms for the soldiers and the dyes with which the cloth was dyed, with medicines, surgical instruments and dressings, with musical instruments, with ball bearings, telescopes, optical instruments and engineering instruments, with coconut charcoal for the making of gas masks, with glycerin for the making of high explosives, and a large number of other and varied products. In some instances the enemy-owned corporations under the Alien Property Custodian's supervision were running 100 per cent of their capacity on Government business.

In addition to enemy-owned corporations, the Alien Property Custodian took over a large amount of enemy-owned commodities which were in warehouses and various other places in this country. Wherever possible these commodities were turned over to the Government. More than 1,500,000 pounds of nickel and several hundred thousand pounds of ferrovanadium were turned over to the Ordnance Department, 98,000 bags of coffee and 10,000 bags of rice were sent to the Food Administration, while chronometers, binoculars, and various astronomical instruments were turned over to the Navy Department.

A few of the things supplied to the Government by

enemy-owned corporations under the Alien Property Custodian's supervision follow:

Bosch Magneto Co., magnetos to Army and Navy aeroplanes and autos	$2,561,492
Botany Worsted Mills, cloth, shirting, and yarn	5,950,669
New Jersey Worsted Spinning Co., yarn, etc.	8,651,130
Passaic Worsted Spinning Co.	1,851,114
Gera Mills	8,003,492
Norma Co., ball bearings	1,100,000
Bayer Co., aspirin tablets, dyes, etc.	1,160,000
Heyden Chemical Works, acids, etc.	753,423
Werner & Pfeiderer Co., machines for mixing powder, etc.	431,376
Kny-Scheerer Corporation, surgical instruments and supplies	2,107,155

The magnitude of the work in building up an organization and accumulating within a year's time a trust business of these proportions can hardly be appreciated by any other than experienced trust company officials. No trust company in the world handles so many trusts as the Alien Property Custodian, and none has been compelled to handle even a fraction of the number while in the process of building an organization to take care of the work. Starting without a single clerk or a foot of office space, only a little more than a year ago, the organization rapidly thrown together for the purpose of providing for the torrent of business which flowed into it, has grown until 549 persons are now upon its pay roll at its two offices in Washington and New York, and agents, representatives, and depositaries are serving it in every State in the Union and in every insular possession.

The most careful and painstaking investigation has been required to disclose the fact of enemy ownership in thousands of cases. The commonest device resorted to by the enemy owners was the transfer of their property to their friends or agents in this country without valid consideration or upon consideration to be fixed

after the war, and payable out of the business itself at a time when the parties conceived that normal business conditions would be restored. Businesses individually owned were frequently transferred to hastily formed corporations; the transfer often being made by the American agent of the German owner under his general powers. Not infrequently the agent undertook to sell the property of his principal to corporations whose stock was held by himself or his friends, the corporation converting the enemy ownership into a liability to the enemy for a fraction of its value, payable after the war, or in 1920, and in one case as late as 1937.

In many cases shares of stock enemy owned, whose certificates were in the enemy country, were treated as lost and new certificates issued to the American friends of the enemy owner, thus making this stock record of the corporation bear the appearance of American ownership. In some instances enemy owners of stock, whose certificates had been sequestered by the public trustee of Great Britain, undertook to sell their intertest in the corporation to friends in America, to whom new certificates were issued, leaving the public trustee of Great Britain high and dry with only a piece of paper as the result of his operations under the British trading-with-the-enemy act. If we had permitted these fake transfers to stand, and if the American purchasers had been able after the war to maintain the validity of the transactions in a contest with the enemy owners, some Americans would have picked up bargains which would have yielded fabulous profits obviously never contemplated. Cases were not uncommon where American purchasers seriously contended they had bought stock at $100 per share whose book value ran into thousands of dollars.

Property, whose sale or exchange in times of peace would have required months of negotiation and reams of paper on which to write the instruments necessary

to protect the parties in their contracts, was sold under stress of the imminent war conditions about the time Von Bernstorff received his passports, by the mere exchange of 10-word cablegrams. Conversations held years before in the beer gardens of Berlin, or in Fifth Avenue restaurants, when German owner and American friend casually discussed their American businesses, were suddenly resurrected to serve as foundation and justification for the most amazing transfers and alleged sales of enemy property in America. Great industrial institutions here, almost by word of mouth, traded their holdings in Germany for the property of Germans here, leaving balances to be adjusted when the war might permit either a confirmation of the transfer or a resumption of the former business status of the parties. Every device known to the law, as well as many unknown to the law, served the purpose of evading the consequences of the war between Germany and the United States, which German business men at least seemed to have foreseen from the time the world war started.

In working out their plans, the German owners frequently had the assistance of capable American counsel, who in most cases carried out the details of the transaction in entire good faith and without ulterior motive, being without knowledge of the underlying purposes of the parties. Most of these lawyers, feeling that the interest of their country was paramount to those of their clients, assisted us in developing the real facts from which we were able to draw conclusions as to the actual ownership of the property. In very few cases have we discovered American lawyers active parties to conspiracies to defeat the belligerent rights of the United States, or to hide the property of enemies from the governmental authorities.

In approaching all these cases we have been guided constantly by the standard set up by the Supreme

Court of the United States in similar cases, generally involving seizure and condemnation of vessels at sea in time of war. As stated in a recent case, referring to a transfer of enemy property during the Spanish war—

> The opportunities for fraud being great, the circumstances attending a sale are severely scrutinized and the transfer is not held to be good if it is subjected to any condition or even tacit understanding by which the vendor keeps an interest in the vessel or its profits and control over it, a power of revocation, or a right to its restoration at the close of the war.

Wherever the facts seem to justify the conclusion that the transfer of property has been made in contemplation of the war to defeat the belligerent rights of the United States, to avoid the effects of an anticipated trading-with-the-enemy act, or with a view of resuming the ante bellum status at some time in the future, we have not hesitated to cut through the contracts, conveyances, obligations, and trust agreements by which the parties have sought to conceal their real purposes and have declared the property to be enemy owned. In most cases, after our thorough investigation, confessions of the parties have verified our suspicions and fortified our conclusions. In other cases sturdy resistance has been met all along the line and delivery made to the Alien Property Custodian only under protest. In but one or two cases, however, did this protest reach the stage of litigation before the armistice was signed.

With the cessation of hostilities something of a new fighting spirit has developed, and lawyers who, while the war was on, would have been unwilling to play any part in resisting the just demands of the Government in the taking of enemy property, have not hesitated to throw all sorts of obstacles in the path of the Alien Property Custodian and to invoke the aid of the courts to sustain transactions, which as patriotic

Americans they would have been first to condemn while the war was being fought. It seems not improper for me to say that lawyers ought to be no less loath now than heretofore to involve themselves in the machinations of enemy persons seeking to prevent the agencies of the Government from carrying out the expressed will of the Congress.

The legislative intent was plainly that all enemy property, concealed as well as disclosed, should be placed entirely beyond the control or influence of its former owners, where it can not eventually yield aid or comfort to the enemy directly or indirectly. Until the peace terms are finally signed and the ultimate disposition of enemy property determined by the act of Congress, it shall be the firm purpose of the Alien Property Custodian to carry out the will of the Congress in respect thereto. Neither litigation nor threat of litigation ought to be interposed to stay that purpose. The trading-with-the-enemy act makes ample provision for the full protection of American citizens whose just claims or property rights may be affected by the administration of the Alien Property Custodian's office. Property in his hands is in custodia legis in a large sense, and the Government can be relied upon at the conclusion of the war to make adequate provision for the just disposition and distribution of all this property.

The enemy investments in America divide themselves into two classes. In the first class are the private investments of individual German subjects, who, attracted by the possibilities in America, invested their funds in a small way in this country in real estate, in mortgages, and in securities, chiefly of industrial and transportation companies. In the second class are the investments which have been made by combined capital in Germany having close affiliations with the great political and financial powers of the Empire.

These latter investments sought dominance and frequently secured control of great industrial and commercial establishments in the United States. It seemed to me from the beginning that these two classes of property should be treated differently when they all came into the possession of the Alien Property Custodian. Speaking in a general way, investments in the first class were friendly. And as to them the Alien Property Custodian is constituted a sort of trustee or guardian to see that they are conserved and protected as against the time when the treaty of peace or the act of Congress shall make final disposition thereof in kind. Investments in the second class were in a sense hostile. They constituted Germany's great industrial army on American soil. They were the far-flung lines of advance for her kultur, and so great had they become with the opening of the world war that it has now become perfectly plain that Germany lived in high hopes of the assistance which would come to her from the organization which she had built up on this side of the Atlantic. These investments were largely in industries, which, while accepting the hospitality of American laws to become American corporations, were never in fact Americanized. In many cases the factories, warehouses, and offices of these enemy-owned concerns were mere spy centers before America entered the world war, and would have been nests of sedition if the Alien Property Custodian had not acted promptly in their seizure. As to these no obligation is owed to their private owners to conserve or care for them with a view of ever returning them in kind. The purpose of Germany in maintaining many of them here was such as to justify their complete eradication as German enterprises and their thorough naturalization into an American character.

When the trading-with-the-enemy act was origi-

nally passed there was little accurate or definite knowledge as to the extent of the German investment in the United States. While it was known to be large it was not generally suspected as being either powerful or particularly unfriendly to American interests. Consequently, the original trading-with-the-enemy act made the Alien Property Custodian a mere conservator, restricting his powers of disposition of enemy property to cases where it was necessary to make sale in order to prevent waste and protect the property. If this situation had remained unchanged, we would have found ourselves in the anomalous position of carefully protecting for the enemy the great industrial and commercial army which Germany had planted here with hostile intent. More than that, we would have been forced to account at the end of the war for enormous profits made by many of these businesses; profits due almost wholly to the war conditions for which their owners and their owners' friends were responsible.

When the Congress passed the amendment giving to the Alien Property Custodian the general power of sale, it was with the purpose in mind that the German industrial army on American soil should be captured and destroyed. I have proceeded with all expedition possible to this end. Instead of permitting myself to become a mere conservator of enemy property, I have tried to make the trading-with-the-enemy act a fighting force in the war. Germany very promptly recognized the tremendous import of the new aspect of things when the sales amendment was adopted and a general program of sale of enemy-owned industries was announced. She bitterly protested through official channels that the plans of the Alien Property Custodian "were designed to destroy Germany's economic existence upon this continent."

When it is recalled that Germany's great hope for the future lay in the industrial conquest of this conti-

nent—a conquest which she believed in 1914 she was in a fair way to accomplish—it will readily be seen with what dismay her financial and commercial interests must have viewed the sudden and direct offensive which was designed to forever loosen the grip which she had obtained upon American industry and commerce.

Our selling program was accompanied by fair notice that, while we would after the war account for the proceeds of sales of enemy property, the properties themselves would be separated from their former enemy owners forever. The sale to the United States Government of the Hamburg-American and North German Lloyd docks on the Hudson River at New York and at St. Thomas in the Virgin Islands; the sale and liquidation of the enemy interests in the great American metal, textile, chemical, electrical, and other industries before the armistice was signed, helped to bring the German Government to a realization that, regardless of possible military victories, she had already lost the war. What effect this program had upon the general morale of Germany it is yet impossible to estimate. Its heartening effect upon our allies and our own people has been well recognized, and by the same token may be assumed to have had a contrary effect upon our enemies.

Great permanent good will result to this country from the Americanization of these enemy-owned concerns. A hybrid Americanization is no less dangerous in industry and commerce than in individuals. Foreign capital ought to be welcomed here, but only if it becomes promptly naturalized and remains loyal to the country of its adoption. In most of these German-owned industries in America there was not even divided allegiance. Their first love was the Fatherland and all their efforts here were in its interest. They spread the German propaganda before America

was awake to its significance. They hoped to be powerful enough to make it effective when "the day" should come. This is now all in the past. Industrial, commercial, and scientific development which had been stifled or throttled here by reason of the selfish conduct of the German industrial interests should now have full play.

In subsequent chapters I attempt to show how the German influence became powerful in many lines of industry; how it strangled American effort in similar lines and how the Americanization of these industries will open wide the throttle for their speedy growth and development in American hands for the benefit of the American people. It has seemed to me that such a statement of the real conditions in the past; the efforts of this office in trying to change them and the outlook for the future of American industry by reason of such efforts, constitute the kind of report which I should make, rather than a mere accountant's list of the names, addresses, amounts, and description of property taken over in nearly 35,000 separate estates. Such a list would be meaningless for any other than accounting purposes. Such information is, of course, all available in this office for use at such time as the claims of enemy persons shall be disposed of according to the will of Congress. In the meantime, it is the large and broader view of the great industrial offensive which during the months of war this office has been privileged to wage against enemies abroad and enemies at home that I desire particularly to present.

I do not advovcate any trade boycott out of a spirit of revenge or in retaliation for injuries done to the United States. I do not want to continue the war after the war. I am for peace. I believe that the great overshadowing result which has come from this war is the assurance of peace almost everlasting amongst the peoples of the earth. I would help to make that an

absolute certainty by refusing to permit Germany to prosecute a war after the war. The military arm of her war machine has been palsied by the tremendous hammering of the allied powers. But her territory was not invaded, and if she can get out of the war with her home territory intact, rebuild a stable government and still have her foreign markets subject to her exploitation, by means no less foul and unfair than those which she has employed on the field of battle, we shall not be safe from future onslaughts different in methods, but with the same purpose that moved her on that fateful day in July when she set out to conquer the world.

There can be no question either as to the legality or the wisdom of the announced policy of the Alien Property Custodian to continue the liquidation and sale of enemy-owned business in his hands. In the first place, Germany and the United States are still at war. The trading with the enemy act is still in force. Some fantastic arguments have been made to the effect that the war is really over because the President in his message to Congress, defining the terms of the armistice, added "thus the war comes to an end." The trading with the enemy act defines the end of the war with precision. It provides that it shall be "the date of proclamation of exchange of ratifications of the treaty of peace, unless the President shall by proclamation declare a prior date, in which case the date so proclaimed shall be deemed to be the 'end of the war.'" One interested party has filed a brief with the Alien Property Custodian seriously contending that the President's remark in his message to Congress constituted a proclamation declaring a date prior to the exchange of ratifications as the end of the war. But I can hardly believe that such a contention will be supported by the public generally, much less will it be agreed to by any court.

Again, enemy property which is now being sold was all demanded and taken over by the Alien Property Custodian many months before the armistice was signed, and the jurisdiction of the Alien Property Custodian having attached there can be no legal reason why the signing of the armistice should operate to prevent the change of character of that property which is the only effect of the sale. The proceeds, constituting the fair and adequate value of the property, are deposited in the Treasury of the United States and held for precisely the same uses as the property itself was held.

But the policy of the Alien Property Custodian in continuing these sales is based upon very much broader considerations than the technical right to hold the sales growing out of either office procedure or a continuance of a state of war. I have already referred to the importance and necessity of securing American industrial independence by dislodging the hostile Hun within our gates, whose methods are such as to unsettle the future peace of the world. Besides that, Germany has sequestered all of the American property within the bounds, and has liquidated or sold to German subjects a considerable portion thereof. It is not conceivable that this property will ever be returned to its American owners in kind. Under the conditions now prevailing in what was once the German Empire, American investors in Germany will neither expect nor desire to continue business where they left off when the war began. Certainly they will not be put by their own Government to the necessity of seeking redress from the German courts or the German Government in their claims for property taken during the war under German laws. They confidently rely upon their own Government, whose traditional policy has been to take care of the claims of its own nationals against a belligerent.

It is not necessary to forecast the treaty of peace to hazard the prophecy that all American citizens whose property has been taken in enemy countries will under some form of administrative law present their claims for allowance to this Government, which will see that they are properly reimbursed for their losses. The United States will hardly be expected to pay these losses out of its own funds when it has at hand more than sufficient property belonging to German subjects whose claims against us will doubtless be provided for by their own Government in the same manner. By a simple process of offsetting and adjusting these claims between the United States and the allied nations on the one hand, and the central powers on the other, each Government will have sufficient property belonging to the enemy to provide for the claims of its own nationals. Such a plan as this, which seems to me to be firmly grounded on the precedents, will require the liquidation, extending possibly over a long period of time, of all the enemy property in this country. There would be no actual confiscation of private property in such a plan, for each Government would pay the claims of its own people and have the property of its enemies with which to pay them.

To turn over the German property in this country to its former owners in kind would be in effect a confiscation of the property, for the bitter resentments accruing from this awful war are such that human nature would have to be reconstructed before the German would be welcome as a business man upon American soil, within the next decade at least. If an American corporation whose stock is owned by German subjects were turned back to-morrow to the control of its former owners, its business would melt away, its assets would shrink and its former good-will as a going business would become a distinct liability. The German

investor would save little out of the resulting wreck. Foreseeing disaster, the German owners of American securities in all lines of industry would either dump them upon the American market with resultant disarrangement in finance and commerce, or conceal their ownership behind dummies who would seek to deceive the American public. Either result would be unfortunate and should be avoided.

I freely and gratefully acknowledge the debt which I owe to every member of my organization and to thousands of other persons throughout the country who volunteered information and assistance, without whose loyal and constant help the work of the office would have been impossible of accomplishment. The heads of all my bureaus, nearly all division chiefs, and many men occupying apparently minor positions in the organization have accepted those places at great personal sacrifice, anxious only for the opportunity to be of service to their country in the war. They have done splendid work. The meager salary which they have received is but a small part of their compensation. The rest will come from the satisfying knowledge of a patriotic service done cheerfully and well.

The entire organization will, I am sure, agree with me that it is no reflection upon the splendid work done by others for me to particularly refer to Francis P. Garvan, of the New York bar, who as managing director of the New York office and director of the Bureau of Investigation, by his splendid organizing and investigating abilities, is chiefly responsible for our securing millions of property which had been skillfully concealed by its enemy owners; Lee C. Bradley, of Birmingham, Ala., whose service as general counsel has been of enormous value in the interpretation and enforcement of the act, both in consultation and in court; Joseph H. Choate, jr., of the New York bar, who

has devoted 16 months constantly to the work of unearthing and Americanizing the German-owned chemical industry in this country, with great possibilities of lasting benefit for our people; and Bradley W. Palmer, of Boston, who, in cooperation with all branches of the organization, successfully handled the largest and most difficult problems of the office; Walter D. Denegre, of New Orleans, who successfully worked out all of the intricate questions involved in the taking and Americanizing of enemy-owned properties in our insular possessions, and to Joseph F. Guffey, Director of the Bureau of Sales. All these men, sacrificing large personal interests to devote their entire time and energy to the affairs of the Alien Property Custodian, have served entirely without compensation and are entitled to the gratitude of the country.

I am also deeply indebted to the members of my advisory sales committee: Otto T. Bannard, Cleveland H. Dodge, and George L. Ingraham, of New York; Ralph Stone, of Detroit; and B. H. Griswold, jr., of Baltimore. All of them, busy men of large affairs, have gladly devoted a great amount of time and thought to the execution of our selling program; have examined with great care all of the proceedings leading up to and resulting in sales of enemy property, and, after full, patient, and painstaking investigation, have passed upon the adequacy of the price and the character of the purchasers. Their approval of these sales is in itself an unqualified guaranty of the fairness with which this office has dealt with enemy property in the important matter of its Americanization.

I also desire to express my deep appreciation of the services of Alton McCulloch, Benjamin Rush, Otho E. Lane, R. N. Bissell, and Jesse S. Phillips, members of the Fire and Marine Insurance Committee, and Thomas A. Buckner, Frederick H. Ecker, and Lincoln

Passmore, members of the Life Insurance Committee, for their generous and painstaking assistance in the handling and liquidation of enemy insurance companies.

The entire organization has been under the general supervision of the managing director, J. Lionberger Davis, of St. Louis, whose experience as a lawyer and trust company executive has made his assistance in organizing and directing the work of the office of the highest value.

ORGANIZATION.

To perform my duties under the trading with the enemy act, I continued the organization of my office, which was begun in the last two months of 1917, and completed that organization by adding new branches and creating new machinery when necessary, and by consolidating and eliminating all unnecessary machinery.

Obviously it is impossible for the Alien Property Custodian to perform personally the many administrative, judicial, and quasi-judicial duties imposed on him by the trading with the enemy act and delegated to him by the President. It was necessary, therefore, to distribute among the several bureaus the exercise of those functions which were appropriate to each.

General principles, involving the exercise of discretion, and rules of general policy are laid down by the Custodian, with the aid and advice of the managing director and the directors of the several bureaus, who meet with him daily at a noonday conference. Those principles and rules are applied by the several bureaus through their divisions, sections, and departments, and their acts are the official acts of the Custodian.

The managing director acts for the Custodian in

all matters which may be lawfully delegated to him and supervises the relations among the several bureaus. All demands, except for property in the Philippine Islands, are executed by the Alien Property Custodian or in his name by the managing director. Under appointment by the President, the managing director executes acquittances and other instruments which may be necessary to give full acquittance and discharge for enemy property delivered to the Alien Property Custodian. Enemy property in the Philippine Islands is demanded in the name of the Alien Property Custodian by a managing director for the Philippine Islands, who executes acquittances for such property under authority of the President.

The Bureau of Administration has charge of quarters, supplies, personnel, mails and files, appropriation accounting, and disbursements.

The Bureau of Investigation is charged with the duty of discovering enemy property and all interests therein and the thorough investigation of unusual facts arising in connection with demands for enemy properties and the administration of trusts.

The Bureau of Trusts, in addition to its usual functions of preparing demands for and receiving, holding, administering, and accounting for enemy property, is called upon to apply principles of policy to the almost infinite variety of facts and questions arising in the course of administration of trusts.

The Bureau of Law advises the Custodian and the several bureaus on questions of law.

The Bureau of Sales performs the functions of the Custodian in respect of sales of enemy properties, accounting to the Custodian through the Bureau of Trusts.

The Bureau of Audits audits the records and accounts of the Bureau of Trusts and of the Bureau of

Sales, and the books of persons, partnerships, and corporations whose property or stock is demanded by the Custodian. On January 1, 1919, this bureau was discontinued and its duties assigned to other bureaus.

Early in the year it was necessary to open an office in New York City, where the great majority of enemy property in this country is located. In that office are representatives of the Bureaus of Investigation, Laws, Audits, and Administration, and substantially the entire Bureau of Sales. The director of the Bureau of Investigation is managing director of the New York office. The entire Bureau of Trusts, however, is in the main office at Washington.

During the year the Bureau of Investigation was largely expanded for the purpose of discovering and investigating enemy property and all interests therein.

The Bureau of Law was expanded not only in Washington and in New York, but State counsel were appointed in every State for the purpose of advising the custodian about legal matters in their respective States.

The Bureau of Trusts has expanded very materially, and upon it will rest the continuing responsibility of conserving, administering, and accounting for the properties of enemies as long as the office exists. Although the Bureau of Trusts is the largest bureau of the office it would have been many times its size had it not been for the depositaries which the Congress very wisely provided for in the act. Over 500 banks and trust companies have been designated throughout this country and in its territories and insular possessions.

Depositaries are designated for all enemy properties other than money and securities of the United States. Money and securities of the United States are deposited in the Treasury. Responsible banks and

trust companies which report enemy property are designated, whenever possible, depositaries for such properties. Responsible banks or trust companies are designated depositaries for properties reported by others in those places, if practicable, where such properties are situated, preference being given to those banks or trust companies which are members of the Federal Reserve System. In unusual trusts an individual is designated codepositary with a bank or trust company, where his familiarity with the property makes such a course advisable. There are no local custodians and no exclusive depositaries. There may be, and frequently are, many depositaries in those places where large numbers of enemy properties (in several trusts) are located.

After the trading with the enemy act was amended on March 28, 1918, and the Custodian was thereby given the power to sell enemy property, as though he were the owner thereof, the Bureau of Sales was created to sell those businesses and interests therein which the Custodian determined should be sold.

There are five ways in which property is received by the Custodian:

1. In response to a formal demand.
2. By order or decree of a court.
3. In pursuance of a petition by the holder of such property, to be permitted to turn it over.
4. In pursuance of a license by the War Trade Board in connection with liquidation.
5. In pursuance of a license of the Treasury Department in connection with the supervision and liquidation of enemy insurance companies.

When a report, petition, copy of a decree or license is received in the office, it is given a report number by the Division of Mails and Files in the Bureau of Administration, and entered upon the Report Register.

It is then routed to the Bureau of Investigation, where it is examined for sufficiency of form and substance, and if there is doubt about the latter, advice is received from the Bureau of Law. If the enemy status is established, and the property should be demanded, the report is routed to the Bureau of Trusts, where it is given a trust number and assigned to the appropriate division.

Thereafter the Bureau of Trusts has complete jurisdiction over the property, calling upon the Bureau of Investigation for any further information which is necessary, and upon the Bureau of Law for legal advice. If a sale is authorized, the Bureau of Sales is charged with the duty of conducting such sale, and accounts to the Bureau of Trusts for the net proceeds realized. Litigation affecting such property or the interests of an enemy therein, and claims under section 9 of the act, for all or any part thereof, are referred to the Bureau of Law, and distribution is made by the Bureau of Trusts upon the advice of the Bureau of Law.

An analysis of the books in the Division of Accounts and the demands on file not yet complied with as of February 15, 1919, reveals the following facts regarding the nationality of the former owners of the property seized:

Nationality.	Number of trusts opened.	Estimated value of property.
German enemies	17,339	$326,855,090.39
Austrian enemies	7,580	39,555,557.34
Interned enemies	140	3,457,898.17
American enemies	648	91,866,053.40
Other enemies	1,567	40,371,354.63
Net income from Treasury investments..	....	839,770.82
Total	27,274	502,945,724.75

[Note: This chapter attached to defendant's answer as Exhibit 2.]

[30*]

(Offered and Admitted in Evidence as Plaintiff's Exhibit No. 12.)

(An excerpt from the report of A. Mitchell Palmer, as Alien Property Custodian, dated February 22, 1919.)

CHAPTER II.

THE CHEMICAL INDUSTRY.

The great field of chemical industry presented, at the outset, perhaps the most difficult of the many problems which the Alien Property Custodian was expected to solve. It was, or had been until importations ceased, saturated through and through with German influence. In regard to no branch of human endeavor was the myth of German invincibility more firmly fixed in the public mind. The country was flooded with German chemists; and those who were not German by origin, were mostly German, directly or indirectly, by training. A vast proportion of the persons engaged in the business bore German names. Connections more or less close between American and German houses were frequent and obvious. There was unquestionably a considerable German interest in such manufacturing as was being carried on. In view of the well-known and uniform policy of the great German government-aided combinations to embark in foreign manufacture only when export from Germany was not feasible, this interest seemed unlikely to be large; but, unless it could be discovered and rooted

*Note: Numbers in brackets refer to pages of original printed answer.

out, no substantial Americanization of the industry was possible. The German chemical industry, which had so thoroughly penetrated and permeated our own, was gigantic, perhaps the strongest, and certainly the most remunerative of all Teutonic industries. The task of identifying and taking over its property in the United States was thus a direct attack upon a most formidable opponent; while the information on which the work had to be based, had to be derived, to an exceptional extent, from men hostile by birth or tradition.

[51] In order to give a fair understanding of the situation, it is necessary to sketch briefly the history of the German chemical industry. From about the middle of the nineteenth century, the practical application of chemical science began to occupy the attention of a constantly increasing number of the best scientific and industrial minds of Germany. A combination of natural advantages and national characteristics led to rapid advance. The industrial districts in which the necessary materials and other facilities were found or developed was exceptionally compact. Distances were short and transportation easy. Labor was cheap, docile, and stable. On the other hand, the national habit of mind was peculiarly fitted for chemical research work, and particularly for the interminable tasks presented by such research, in the way of exhausting the immensely numerous possible combinations available within a particular field. From the first, scientific attainment, and particularly accomplishment in the field of research, appealed strongly to the public mind. Men of science, and particularly research workers, were more highly regarded than in other countries. This tendency was strongly fostered by the Government, which, by conferring honors and titles, did everything possible to exalt the position of the successful scientist.

As a consequence of these conditions, the universities were at an early date provided with the most elaborate and advanced equipment for research work, and attracted to themselves an extraordinary proportion of the ablest young men of the nation. They accordingly proceeded to turn out a constantly increasing number of highly trained technical men, whose services were available to the rising chemical industry. The number of these men was such that the inevitable competition between them for places made the average salaries exceedingly small. Highly skilled service was, therefore, available to the German chemical manufacturer at an extraordinarily low cost. In this respect he had a marked advantage over the manufacturers of any and every other country in the world.

[52] These advantages were made use of to an extent nowhere else approached, because from a comparatively early date the importance of research work to practical industry was firmly grasped by both the industrial and governmental ruling classes. The alliance of the manufacturer and the university professor became constantly closer and more complete. To meet the needs pointed out by the industrial leaders, armies of plodding, but nevertheless skillful, chemists completed hundreds of thousands of separate researches. The results of these kept the German chemical manufacturers constantly in the van—always somewhat ahead of their competitors in other countries in the way of new processes and products.

While all that has been said above applies in a measure to every form of chemical activity, the German advantages were naturally less in the manufacture of the heavy chemicals than in the more difficult and complicated processes involved in other forms of the industry. Chemicals which are consumed in great quantities, like sulphuric acid or soda ash, are produced at prices so low that costs of transportation are

often a controlling factor. Accordingly, in this branch of the trade the Germans never attained supremacy. The natural tendency was for each country to supply itself with these essential materials, and this natural tendency had not, at least so far as the United States was concerned, been overcome.

In two other great branches of chemical industry, however, the Germans had attained not only the first place, but to all intents and purposes a world monopoly—that is to say, in the practical application of organic chemistry to the manufacture of dyestuffs and medicinals. Although the first coal-tar dye was made in England by an English chemist and the next important step in the development of the industry—the production of Fuchsine, or Magenta—was the work of a Frenchman, the Germans almost immediately advanced beyond [53] the rest of the world in the development of this infinitely complex industry.

This complexity of the manufacture of dyestuffs as a business proposition is almost beyond belief. Tens of thousands of distinct dyes were produced in the German factories, and over 900 of these were actually sold in appreciable quantities, in the American market alone, before the war. Each of these nine hundred and odd products required a separate and distinct process of manufacture, one differing from the next, in many cases, as widely as if the products had been those of unrelated industries. While all these dyestuffs and a host of pharmaceuticals have a common source, in that they are derived originally from coal tar, they descend from this common ancestor by an enormous number of separate family lines. From the hundreds of distinct substances found in coal tar 10 so-called crudes form the starting points of substantially all the processes which result in dyes. From these more than 300 so-called intermediates are produced by a variety of more or less complex chemical

reactions. Most of these reactions require the use of large quantities of acids and other chemicals not produced from coal tar. From the intermediates thus obtained an infinite number of possible dyestuffs can be produced. Many thousand such dyestuffs have been actually produced and marketed.

In carrying out the processes which result in the extraction of the crudes from coal tar, the conversion of crudes into intermediates, and of intermediates into dyes, the quantities of each substance produced depend not upon the will of the manufacturer, but upon the inexorable laws of chemistry. The proportion of the various substances obtained can be varied slightly by skillful manipulation, but only to a small extent. The manufacturer can not avoid producing large quantities of certain materials in order to secure perhaps smaller quantities of others. Again, at the very starting point of the industry, in extracting the crudes from the original coal tar, [54] an analogous situation arises. The tar's content of anthracene, from which the most valuable of all modern dyes are derived, is relatively small; that of naphthalene, for instance, is immensely larger. The tar distiller can not obtain anthracene without producing or wasting much greater quantities of naphthalene, benzol, and other crudes. The same truth holds good in every subsequent step of the immensely complex processes of dye manufacture. At each step by-products are produced in addition to the products sought. The obvious result is that, unless the final product can be sold at a colossal price, uses or markets must be found for most of these innumerable by-products. Many of them, fortunately, are useful in the manufacture of intermediates and dyes. Many have been found to have important medicinal effects and have taken permanent rank as pharmaceuticals. For others no use has been found, and

the unavoidable production of these represents pure waste.

The most important feature, however, of this production of by-products is the relation which it bears to the explosive industry. All the most important explosives of the present day are either coal-tar products or the result of chemical processes requiring the use of coal-tar products. In a large dyestuff factory there is an unavoidable production of considerable quantities of substances which are directly available for conversion into explosives. Moreover, in addition to these by-products which can be used for manufacture of explosives, many of the materials which are not by-products but are directly useful for the production of dyes, can also, by slight alterations in the processes employed, be converted into explosives. For example, in the production of sulphur black, one of the most important black dyes, a slight variation in the final step of the long and complicated process of manufacture will transform the ultimate product into picric acid. A still more striking example is that of paramononitrotoluol. This is an intermediate necessarily made in quantities often beyond the needs of the [55] dye makers. To the end of the last century many thousand tons of this substance had accumulated in the German dye works, which were making frantic efforts to find uses for it in dye making. About 1904 these efforts suddenly ceased. Trinitrotoluol (T.N.T.) had been adopted as a military explosive, and every pound of the accumulation was directly available for easy conversion into this most formidable of high explosives. More important still, however, than this unavoidable production of materials for explosive manufacture, is the fact that the technical skill required for the manufacture of explosives is precisely that possessed by the chemical staff of a successful dye works and is to be found nowhere else.

Three things are apparent in regard to a business conducted under such conditions. One is that, unless limited to the manufacture of a very few carefully selected products, it must be carried out on a large scale with the aid of immense resources in the way of capital and technique. Another is that, if carried out on a large scale, one of its most important features will inevitably be the maintenance of large research laboratories to work out the infinite problems raised by the necessity of disposing of by-products. A third is that the connection with the explosive industry is so close that no Government which gave any serious consideration to the possibilities of war could fail to see the necessity of aiding and controlling the industry. The truth of each of these propositions was at once demonstrated in the history of the German dyestuff industry. From an early period, the manufacture became concentrated in a few important companies.

These companies, ultimately six in number, developed into enormous establishments producing practically complete lines of dyes and manufacturing most of their own crudes and intermediates, as well as many of their acids and heavy chemicals. Several of these establishments also became large producers of pharmaceuticals in order [56] to procure an outlet for their by-products. Outside of these very large houses, the industry was confined for the most part to small establishments producing only a limited number of carefully selected dyes, so chosen as to minimize the by-product difficulty, and so organized as to enable the owners to save most of the overhead expense by themselves furnishing the required technical skill and superintendence. These, indeed, were mostly little more than assembling plants. In the great establishments, the research laboratories became large and highly efficient institutions. In these laboratories hundreds of chemists were constantly employed. Their

facilities were placed at the disposal of research chemists from universities—often men who had no connection with the dye industry whatever. Many of the manufacturers' own chemists were allowed and encouraged to proceed with researches which had no probable immediate commercial utility, but which tended to increase the existing supply of knowledge in those general regions of the world of organic chemistry in which the dyestuff concerns were operating. The result of all this inevitably was the accumulation of an immense mass of scientific data which usually afforded a quick and easy solution to each industrial problem as it arose. The results were sometimes startling. The most striking instance, perhaps, is the case of the Pfleger patent. The invention covered by this patent solved, by the use of sodium amide, of which an overproduction was available, the problem of producing indigo direct from aniline, and thus afforded a process far simpler than and at least as cheap as any theretofore known. As an instance of how closely such matters are followed by the German public, it may be noted that the announcement of the purchase of this patent by the great Hoechst works, one of the largest German dye manufacturers, advanced the company's stock 150 points on the stock exchange in a single day. The importance of this research branch of the industry is thus hard to overestimate. Finally, the connection [57] with the explosives industry resulted, as is well known, in constant governmental assistance to and control of the dye industry. Much was done by the German Government to insure the prosperity of the dye industry and its immediate convertibility to the production of munitions.

These conditions soon produced in the dye industry certain results similar to those which occurred in all the other important German industries during the great period of expansion at the end of the nineteenth

century. The improvements in processes brought about by research laid heavy emphasis on the value of quantity production. Quantity production, carried on by competing houses, led to overproduction. Overproduction led to a determined effort to establish and maintain a large export trade. The natural advantages of the German industry, as compared to the industry in other countries, prevented serious competition in Germany itself. The Government's tariff and other policies enabled home prices to be kept up. It was then evidently to the advantage of any manufacturer to produce far more than he could sell in the home market, even if his export trade had to be carried on at a loss, when by doing so he could use a process so economical that his profits on home trade would be largely increased. Accordingly, German dyestuffs began to appear in every country at prices which domestic manufacturers could not meet. The inevitable result was that in country after country the domestic manufacturer was destroyed or stifled in its cradle. As soon as this had been accomplished, it was no longer necessary for the German exporters to sell at or below cost. Prices were immediately raised and handsome profits realized. The tendency to this result was recognized by the German Government from the first, and every facility was afforded to the growing export trade. It was fully realized by both the civil and military authorities that if a world monopoly in the dyestuff industry could be built up the military strength of Germany would [58] be colossally enhanced, since it alone of all the great powers would then be in a position to secure immediate supplies of the vast quantities of munitions likely to be needed in a modern war.

The methods under which this dumping policy was conducted, and its extent, may be illustrated by a few specific instances. Most of these occurred in branches

of the chemical industry other than the manufacture of dyes, for the simple and sufficient reason that in this country, at least, the dyestuff industry never reached a point where it required much discouragement. When, however, in 1910 the first determined effort was made in this country to establish the manufacture of an important intermediate, when, that is to say, the Benzol Products Co. was organized by a group of men interested in the heavy chemical industry, to manufacture aniline oil on a large scale, the German hand was immediately shown. The price of aniline oil at the time of the establishment of this company averaged 11½ cents. As soon as its manufacture was fairly under way, the German exporters commenced to cut the price. Apparently, no definite prices were made by the Germans, but they adopted the simple policy of offering any customer of the new concern supplies at less than the price he was paying. For example, one of their most important customers refused an advantageous contract at 8½ cents, stating that he had assurance from the Germans that whatever price the Benzol Products Co. made would be met and bettered by them. Accordingly, the new company struggled on, conducting its operations without profit, and only because it was supported by a group of men of exceptional determination and insight was it able to survive until the war gave it an opportunity to establish its business on a firm foundation. Among other examples are the following: In 1903, there were in the United States five manufacturers of salicylic acid. By 1913, three of these had failed. Of the two survivors, one was the Heyden Chemical Co., a mere branch of a [59] German house, which, as such, I have since taken over. During the latter part of the decade referred to, salicylic acid was selling in Germany at from 26¼ to 30½ cents. During the same period, the German houses were selling it in this country, after paying a

duty of 5 cents, at 25 cents, or from 6 to 10 cents below what they were getting at home.

A similar situation developed in the manufacture of oxalic acid. In 1901, when there was no American manufacture, it was sold by the Germans at 6 cents. In 1903, when the works of the American Acid & Alkali Co. were started, the price was immediately dropped to 4.7 cents, at about which figure it remained until 1907, when the American factory was shut down for a number of months. During this shutdown period the price was instantly raised to 9 cents. When the factory reopened the price was again dropped until 1908, when the company failed. It was then reorganized, and in 1909 secured the imposition of a 2-cent duty on the acid, from which time up to the beginning of the war the price ran at about 7½ cents a pound. The same process was carried on in regard to bicarbonate of potash. In 1900 there was no American manufacture and imports ran about 160,000 pounds. In 1901 American manufacture began. This succeeded so well that in 1906 imports had dropped to 45,000 pounds. At this time the American manufacturer's price was 6½ cents, while the import value was given at 4.9 cents. In the following year the Germans made a determined and successful onslaught. Their import value was lowered to 2.2 cents, with a result that, instead of 45,000 pounds, 310,000 pounds were imported. Accordingly, in 1908, the American manufacturer failed. The price was immediately raised to 7½ cents and remained thereabouts thereafter until the war. Many similar instances might be cited, but these sufficiently indicate the method and its results.

This determined onslaught upon the competing industries of other countries, this definite attempt to [60] secure world monopoly naturally created a strong tendency toward combination. As has been stated, by the end of the nineteenth century the real manufac-

ture of dyes on a large scale was concentrated almost exclusively in six great firms. These were the following:

Badische Anilin und Soda Fabrik, Ludwigshafen on the Rhine, hereinafter known as Badische; Farbenfabriken vorm. Friedr. Bayer & Co. in Leverkusen, hereinafter referred to as Bayer; Achtien-Gesellschaft für Anilin-Fabrikation in Berlin, hereinafter referred to as Berlin; Farbwerke vorm. Meister Lucius & Brüning in Hoechst am Main, hereinafter referred to as Hoechst; Leopold Cassella G.m.b.H. in Frankfort, and Kalle & Co. Aktien-Gessellschaft in Biebrich.

Each of these six great companies had attained enormous proportions long before the war. Only two other concerns have carried on manufacture on a scale in any sense comparable. These are the following: Chemische Fabrik Griesheim Elektron of Frankfort A. M., a company which has absorbed a number of smaller manufacturers, and Chemische Fabriken vormals Weiler-ter-Meer, Uerdingen.

It will be noted that all of these establishments with the single exception of Berlin are concentrated in a narrow strip of territory near the Rhine and its tributaries. Their growth may be illustrated by a few figures as to two of the largest. Hoechst was organized in 1863 and started with five workmen. By 1880 it employed 1,860 workmen and 57 chemists, using 1,840 horsepower. It then produced 1,750 different colors. In 1912 it employed 7,680 workmen, 374 foremen, 307 chemists, and 74 engineers, and used 30,000 horsepower. The number of colors reached 11,000. The works of the Badische, which was organized in 1865, covered, in 1914, 500 acres, with a water front of a mile and a half on the Rhine. There were 100 acres of buildings, 42 miles of railway within the works, and the power plants comprised 368 steam engines and 472 motors; 11,000 workmen were [61] employed and the

company was capitalized at 54,000,000 marks. The establishment of Bayer was on a scale entirely comparable with these two giants of the industry. The works of Cassella and Berlin were slightly smaller, while those of Kalle were the least important of the six. Weiler-ter-Meer was important largely because of its connection with the great Swiss house of Geigy & Co. Griesheim Elektron, prior to the war, had enormous works chiefly devoted to the manufacture of electrolytic chemicals, and became an important factor in the dyestuff business only within recent years, when by absorption of the Oehler Works and the Chemikalien Werke Griesheim its color production reached a scale approaching that of the larger houses. Of these eight great concerns each had active agent houses in the United States, which were among the most important factors in the American industry and accordingly in the work of the Alien Property Custodian in connection therewith.

The tendency toward combination, however, by no means exhausted itself in the creation of these giant enterprises. The same causes which produced the enormous concentrations of capital in other German industries in the form of cartels were also working in the chemical industry. By 1904 two such immense combinations had been formed in the dyestuff industry, each including three of the largest six houses. One of these comprised Bayer, Badische, and Berlin; the other Hoechst, Cassella, and Kalle. Indirectly, through their financial transactions with the great banks, and also directly, each of these cartels was aided and guided by the Imperial Government. By pooling profits, by so arranging capitalization that each company held stock in the other companies of its own cartel, and by other familiar means, the risks incident to the enormous expansion of the business and the immense increases of export trade were minimized. The centri-

petal tendency, however, did not stop here. In 1916 the two pre-existing cartels were combined with Griesheim Elektron, Weiler-ter-Meer, [62] and various smaller companies in one gigantic cartel, representing a nationalization of the entire German dye and pharmaceutical industry. The combination is extremely close. Profits of the companies are pooled, and after being ascertained each year on common principles are divided according to agreed percentages. Each factory maintains an independent administration, but they keep each other informed as to processes and experiences. To stimulate and keep up a spirit of competition between the factories it has been arranged that each product shall be manufactured by two or more factories. There is also an agreement that in order to circumvent tariff obstacles in other countries materials are to be produced outside of Germany by common action and at common expense whenever and wherever desirable.

At the time of the formation of this enormous organization the capitalization of each of the principal component companies was largely increased. Hoechst, Badische, and Bayer each increased their capitalization by 36,000,000 marks, bringing the capital of each up to 90,000,000 marks. The new stock was offered to the old stockholders at 107, which was a melon of some magnitude, since the last available quotations for the stock of one at least of these companies at the end of 1916 was 490. Berlin increased its capital from 19,800,000 to 33,000,000 marks. Other increases brought the total nominal capital of the group to over 383,000,000 marks. For many years a large part of the enormous profits of these concerns has been put back into the works, with the result indicated by the stock quotations. The real capitalization is thus much greater than this nominal figure. In fact, it is estimated that the actual investment in the works com-

prising the cartel is not less than $400,000,000. It can not be doubted that this enormous engine of commercial warfare has been created expressly for the expected war after the war, and that it is intended to undertake still more efficiently and on a larger scale the [63] various methods by which German attacks upon all competition were carried on.

In addition to the favorable effects of the foregoing factors, an important aid to the success of German export trade in dyes and pharmaceuticals was the advantage taken of the patent laws of the several countries. Owing to the immensely greater number of research chemists engaged in this work in Germany than in other countries, far more patentable inventions in organic chemistry were made by the Germans than by the chemists of any other nation. In the United States alone they took out patents by the thousand. For example, Bayer alone accumulated in the neighborhood of 1,200 such patents which were placed in the hands of one of its subsidiary companies. The Badische had approximately 500 such patents, while each of the other members of the cartel held patents by the score. As there was substantially no effort (with small exceptions) by any of the German concerns to manufacture in the United States, these patents were obviously obtained and held in order to prevent the formation of an American dye industry and to make impossible importation from other countries. The latter of these two purposes seems to have been the more important in the German mind. They seem to have had no fear that any American industry could be established on a competing basis. They had, however, some respect for the Swiss, French, and English industries, though at the time of the commencement of the European war Germany was supplying approximately nine-tenths of the world's needs in dyes. With the aid of the patents, especially the product patents, they could and did

exclude all importations of competing dyes in the most important classes.

As if the legitimate advantages of the German industry, supplemented by the ruthless if legal tactics of dumping and destructive underselling, were not enough, the methods of the great German houses in carrying on their business in this country were from the first honeycombed [64] with corruption. Bribery of dyers was carried on almost universally and on a large scale. The head dyers of the various mills and other chief customers of the dye manufacturers were subsidized in many direct and indirect ways. These dyers frequently controlled the situation, since if any one of them wished to have his superiors cease using the dye of one manufacturer and buy instead the dye made by some other company, nothing was easier than to control the complicated process of dyeing in such a way that the dyes furnished by the house which was the least liberal to the dyer would produce wretched results. It would then be an easy matter for the dyer to get the manager of his mill to try the dyes offered by the more liberal briber, and with the exercise of a little care, the new dye would be sure to produce satisfactory results. So extensive was this corruption that I came across only one American consumer that had escaped its ill effects. This concern, the United Piece Dye-Works of Lodi, N. J., avoided the difficulty by having all its dyes purchased by the head of the company himself, under contracts providing that no barrel or package should show the name of the manufacturer. The company was thus able to designate the dyes which its dyers were to use solely by its own arbitrary numbers, and the dyers were thus unable to determine whose dyes they were using and to whom they should look for their graft. Against these illegitimate methods practiced by concerns having such resources and compelled by such an imperious necessity to seek

and maintain supremacy in foreign fields, honest domestic competition found the utmost difficulty in maintaining itself, and it is therefore not strange that until the outbreak of the war the American industry was of little importance.

Besides the obstacles, legitimate and illegitimate, thus placed by the Germans in the way of the establishment of an American industry, it would appear that there was considerable organized propaganda intended to discourage [65] American attempts. It seems to have been regarded as the duty of a good German chemist in the United States to preach the doctrine of the invincibility of the German chemical industry, the impossible difficulty of the processes involved in the manufacture of many important dyes, and the hopelessness of procuring the necessary technically trained men and skilled labor outside of Germany. How far this was an intentionally organized movement and how far merely a sample of the prevalent German megalomania, it is difficult to say, but the results were analogous to those of the well-known potash propaganda, by which it would seem that the farmers, and to some extent even the scientific men, of the United States were persuaded that far more potash was required for our soil than was actually needed. Whether intentional or not, this propaganda had its effects. At all events, prior to the war only a few Americans had the temerity to believe that anything could be done in this country against the German advantages in the way of technical skill, cheap labor, governmental support, and unscrupulous methods.

Indeed, up to August, 1914, the American industry in dyestuffs and medicines consisted of little more than a series of rather small assembling plants. In spite of the fact that enormous supplies of coal tar were available and that several of the crudes could be secured in this country under most advantageous condi-

tions, hardly any of the necessary intermediates were made here, and the manufacture of dyes was almost entirely confined to working upon intermediates imported from Germany.

At one time the industry seemed to have taken a real start. Between 1879 and 1883 nine establishments had commenced the manufacture of dyes and were apparently prospering. In 1883, however, there was a sudden reversal of conditions, and within a year five of the nine shut down. The other four continued on a close margin and were still in existence at the outbreak of the war. Of these by far the largest was the Schoellkopf Aniline [66] & Chemical Works of Buffalo. This company, organized and maintained by an American family of German origin, which had at its disposal very large resources derived from other business, had continuously made a strenuous and honest effort to establish a real dye industry. From time to time they commenced the manufacture of various intermediates, including at one period aniline oil, which was manufactured on a large scale. In every instance, however, the manufacture was almost immediately brought to an end by German price cutting, and at the time of the war the dyes made by this establishment were the product of intermediates imported from Germany. The company, nevertheless, had established a considerable business, and while operating on a very small ratio of profit supplied the greater part of the non-German dyes consumed by the trade. Of the other three concerns Heller & Merz had likewise established a fair business in a few colors also made from German intermediates. The same may be said of the Central Dye Works and the Consolidated Color & Chemical Co., which were operating on a still smaller scale. The latter of these companies, it may be noted, was owned almost exclusively by Mr. Herman A. Metz, the American representative of Hoechst, one of the

largest German dye works, and since the outbreak of the war Mr. Metz has likewise become the controlling factor in the Central Dye Works. In addition to these four, a fifth plant was established a few years before the outbreak of the war, at Albany, by the American subsidiary of the great German house of Bayer.

These five concerns comprised the entire American industry, and it will readily be seen that operating as they did on German intermediates they existed purely on sufferance and were absolutely at the mercy of the German producers. They made neither alizarin nor anthracene colors nor synthetic indigo, which being the fastest known dyes are the most valuable product of the industry. The exclusive ability to provide these fast colors, [67] most of which were protected by patents, would have placed the entire trade in the hands of the Germans even if no other factors favorable to them had been present. These dyes were indispensable to the textile manufacturers, and by refusing to supply them except to houses which would buy their other supplies from the German manufacturers—that is, by the familiar process of "full-line forcing"—the latter could have retained complete control of our market, even if our manufacturers had been otherwise fully able to compete in the manufacture of the simpler colors. The 30 per cent duty payable on almost all of the coal-tar colors apparently afforded no real protection, nor, as will be shown, was it possible for the American industry to secure any relief under the Sherman Act.

The condition of the other branches of the American chemical industry was, as has been stated, not quite so bad. The manufacture of acids and heavy chemicals was well established on a profitable basis, though even in this manufacture the employment of numerous German chemists and processes gave a certain Teutonic color to the industry. In the manufac-

ture of fertilizers there was, in a measure, a balance of power. The Germans had a complete monopoly of potash and its salts owing to their ownership of the only considerable known easily worked potash deposits. This was somewhat offset by our possession of phosphates, of which the Germans had no considerable supply. There was a certain amount of German ownership in companies operating in the phosphate field, most of which ownership has been unearthed and taken over. In nitrates, of course, the United States, like the rest of the world, was mostly dependent upon the Chilean supply.

In the manufacture of chemicals in which electrical processes, requiring large and cheap supplies of electric power, played an important part, the situation was such that the Germans had been induced to enter to some extent into the manufacture in this country. They had [68] organized and owned the Niagara Alkali Co., which, utilizing the cheap electric power of Niagara, became the largest domestic manufacturer of caustic potash, the latter produced from German raw materials. This company also supplied the chlorine gas which was the raw material used by the only considerable American manufacturer of liquid chlorine. In the same way the great Frankfurt chemical works known as the Deutsche Gold und Silber Scheide Anstalt, had through its American subsidiaries, the Roessler & Hasslacher Chemical Co., the Niagara Electric Chemical Co., and the Perth Amboy Chemical Works, established the only large American production of cyanides and the largest American production of formaldehyde and wood distillation products. The importance of these industries will be recognized when it is remembered that cyanides are indispensable to the mining and electrotyping industries, while formaldehyde is the basis of the only new and important chemical industry of American origin, the manufacture

of synthetic resin products such as Bakelite, Condensite, and Redmanol.

In medicinals very little real American manufacture existed. A few of the coal-tar pharmaceutical products were produced by two American houses in St. Louis, the Mallinkrodt Chemical Works and the Monsanto Chemical Works. By far the most important factor in this field, however, was the New York house of Merck & Co., which was a branch of the world-famous firm of E. Merck of Darmstadt, and has accordingly as such been taken over. The enormous dispensing and distributing business of such firms as Parke Davis & Co., Lilly & Co., and Powers-Weightman-Rosengarten Co., successful and efficient as it was beyond comparison with similar businesses in any other country, seems to have involved very little real manufacture, and the materials used were largely imported. There seems to have been but little, if any, German interest in this branch of the industry, except among small brokers and dealers.

[69] From all the foregoing it will be seen that the all-important portion of the chemical industry, the branch in which the work of the Alien Property Custodian would necessarily be most arduous and in which its results might be most beneficial, was the dye industry. The vital character of that industry was due not to its financial importance, since the consumption of dyes in the United States at the time of the outbreak of the war did not exceed $25,000,000 a year in cost to the consuming industries, nor to the fact that these dyes were absolute essentials to industries producing perhaps $2,500,000,000 of goods annually, but most of all to the fact that the technical skill and equipment provided by a successful dye industry furnished the means, and almost the sole means, to which every nation must look for advances in the application of chemical science to practical undertakings. No other in-

dustry offers a livelihood to any such large numbers of highly-trained scientific chemists nor any such incentive to continuous and extended research.

As has been stated, the opening of the year 1914 found nine-tenths of the dyes used in our industries supplied by German houses and the great bulk of these by the largest six German houses. At this time each of these six giants was represented in this country by a subsidiary American corporation. The agent of Bayer was Bayer & Co. (Inc.), a New York corporation, while in the Synthetic Patents Co. (Inc.), another subsidiary, was vested the ownership of the 1,200 American patents taken out by the parent house. This New York company also owned other subsidiaries, including the Hudson River Aniline Works, through which it had established its Albany factory. Berlin was represented by the Berlin Aniline Works, also a New York corporation. Kalle & Co. were operating through a third New York corporation, also called Kalle & Co. In these three cases all of the stock of the American house was admittedly owned outright by the parent organization. All three were [70] accordingly taken over at the outset. The great Badische Co. acted through the Badische Co. of New York, the stock of which appeared on the books to be owned by Messrs. Adolph Kuttroff, Carl Pickhardt and their chief employes. Leopold Cassella & Co. were represented by the Cassella Co., also a New York corporation, the stock of which appeared to be owned by its president, Mr. William J. Matheson, and its vice-president, Mr. Shaw. Hoechst operated through a New York company known as Farbwerke Hoechst, of which the stock stood in the name of its president, Mr. Herman A. Metz. Of these gentlemen Messrs. Kuttroff and Pickhardt were Germans by birth and Americans by naturalization, Messrs. Matheson and Shaw American by birth and tradition, and Mr. Metz American by birth.

An extensive investigation was instituted by my bureau of investigation under the direction of Mr. Francis P. Garvan, and as the result of a long-continued and strenuous effort it was at last shown that the ostensible ownership of the stock of these three branches was not genuine, but that each remained in fact owned by its German progenitor. As will hereinafter appear in the detailed accounts of these proceedings, each of these three companies has also been taken over.

The outbreak of the war cut off the importation of dyes from Germany. There immediately sprang up a number of American companies, mostly small, organized to embark in the manufacturing business. By strenuous efforts these companies contrived to avert the threatened dye famine which the curtailment of the German supply apparently rendered inevitable. Commencing with those dyes which were easiest to produce, and gradually extending to a limited number of the more essential and well known of the non-patented colors, the production increased until at the time when I took office the requirements of the textile trade were being met and a considerable export business had sprung up. The quality of dyes produced was, except in the matter [71] of standardization, comparable with the German dyes of similar character, but the fast alizarin and anthracene colors were not being produced, nor was synthetic indigo, the consumption of which is larger than that of any other dye. The largest of the existing producers, that is to say, Schoellkopf Aniline & Chemical Works, W. Beckers Aniline Co. and the Standard Aniline Co. of Wappingers Falls, have been combined with the aniline oil works of the Benzol Products Co. and with the appropriate portions of the business of the General Chemical Co., the Semet Solvay Co., and the Barrett Co. into a single large corporation known as the National Aniline & Chemical

Co. This combination has since produced considerably more than half of the dyes consumed in America. During the same period the Dupont Co. had begun to construct an enormous plant at Deepwater, Del., established an immense laboratory employing approximately 200 chemists, and had bought the plant of the United Piece Dye Works, in which the latter company had succeeded in producing a number of the most valuable dyes applicable to silk. Among other important concerns the Dow Chemical Co., Messrs. Ault & Wiborg, the Sherwin-Williams Co., and the Newport Chemical Works were preparing for the production of colors on a large scale, while many other companies were turning out appreciable quantities. The prices, of course, rose enormously and the results for a time were correspondingly profitable.

In the meantime the German agencies had been making every effort to retain their organization and their customers. They had on hand, in 1914, a considerable stock of German materials. One or two of the companies, notably Bayer & Co. (Inc.), sold out at once at a colossal profit. The others, apparently determined to retain their customers and their German connection at whatever cost, peddled out what they had in limited quantities, allowing each customer only a small quantity per month. These concerns made their sales at slight advances in price, hoping by this treatment to retain their [72] customers' good will until the resumption of imports could be brought about. This process was assisted by the two voyages of the submarine *Deutschland*, each of which brought to the representatives of the six great houses a supply of the most essential dyes. Bayer & Co. (Inc.) increased its production somewhat, as did Mr. Metz (the American agent of Hoechst) in his Consolidated Color & Chemical plant, while the Cassella Co. organized a new subsidiary known as the Century Color Co. to commence

manufacture under the familiar C. C. C. trade-mark, under which it had sold the goods of its parent German house.

At the time when I took office, therefore, the American dye industry was active and profitable and in almost undisturbed possession of the field; but it required only the slightest investigation to show that the new born industry's hold on life was of the most insecure description. The supply of crudes had been so expanded by the needs of the explosive industry and the consequent increase in the number of by-product coke plants and recovery installations in gas works that our supply of raw materials was unsurpassed. We were, however, producing only a few of the essential intermediates. We had a plentiful lack of even such technical knowledge as was required to produce dyes in the laboratory, to say nothing of the vastly greater amount of similar knowledge required to translate laboratory into commercial production. In the case of all the faster dyes Germany's patents had prevented every attempt at American production, and while the trading with the enemy act authorized issuance of licenses under these patents, the terms were such that no licensee could hope to continue the manufacture in competition with the Germans after the war. In the meantime the representatives of the great German houses were holding their organizations together and keeping their trade as best they could by doling out their remaining stocks and by selling under their own names American products, sometimes mixed [73] with their own German goods. These representatives were waiting for the end of hostilities and were ready at a moment's notice to re-embark in the importing business and assist their German parent houses to destroy the new American industry. It was, therefore, one of the most vital tasks before me to ascertain every trace of German ownership in the new industry

and particularly in the American representatives of the German trust. Unless the Germans could be deprived of the benefit of these branch houses, their reentrance into the field would be all too easy.

This proved to be a hard task. Every variety of camouflage had been resorted to by the Germans to conceal their interests. A favorite method in this, as in other industries, was of course that of a fictitious transfer of stock. In a few cases such transfers were carried out after the severance of relations and before the declaration of war. In these cases the character of the transaction was fairly obvious and our course correspondingly simple. In other cases, however—and this was true of two of the three representatives of the great German houses which were ostensibly American owned—the apparent transfer took place at a period before the war was thought of, at least by anyone outside of Germany. In these cases the transfer was the result of an attack made by persons ostensibly interested in the textile business upon the representatives of the German houses under the Sherman law.

Up to about 1910 all the great German houses shipped their goods to their American representatives on a pure consignment basis. The compensation of the American representative was wholly by way of commission. The American company in these cases was a mere selling agency or branch. In 1912 a group of Philadelphia lawyers brought about the prosecution of an officer of Bayer & Co. (Inc.) (or its predecessor, Farben Fabriken of Elberfeld, another New York corporation) for some of the corrupt practices in the way of bribing buyers, which, [74] as has been stated, had become universal among the German houses. In the course of this prosecution the lawyers in question became familiar with the general history of the German industry and at once realized that it might be made the

subject of an attack under the Sherman law, on the theory that each of the German companies was, through its agent, actually doing business in this country and that the two great cartels were conspiracies in restraint of trade. Acting on this theory, suits were commenced for triple damages against most of the American representatives. The institution of these suits, which were subsequently settled, resulted, in at least two cases, in a transfer by the Germans of their stock in the American company to the officers of that company. In the case of Badische Co., the stock of which was already in the names of the American representatives, it was only necessary to change the basis of the business from consignment to sale. This was done in all the cases, so that the German house might appear not to be doing business in this country through its representative, but to be merely selling to an apparently independent American corporation. There was on the surface no apparent reason why these transfers should not have been genuine. Each German house really controlled the situation with reference to its agent because it could instantly ruin its agent's business by withdrawing supplies. Accordingly, for a considerable period, these houses escaped more than mere general suspicion, and it was not until the Bureau of Investigation of my department had acquired considerable familiarity with German methods of camouflage that the true situation could be disclosed.

This investigation, of course, ran parallel with the similar investigations of several other departments of the Government and the Bureau of Investigation received valuable aid from the offices of Military Intelligence, Naval Intelligence, and War Trade Intelligence, as well as from the Department of Justice and from the British, [75] French, and other allied authorities. All these bodies worked in close co-operation and their

mutual assistance was of inestimable value. Information derived from these sources demonstrated that the chemical industry was a natural center for espionage and that this had been true long before we entered the war—indeed, before the war began. The relation between the German Government and the great German chemical houses was so close that representatives of the industry were naturally most direct representatives of the Government, and their work in this country gave them unequaled opportunities for examining our industries from within. Customers of the German import houses were constantly in need of expert advice in regard to the processes in which their goods were used. The advising expert supplied by the German houses naturally saw everything there was to see, and what he learned was seldom concealed from his Government.

After the war began the industry became a center not only of espionage, but of propaganda and of direct governmental activity. The number of striking instances of this development is so great that only a few can be detailed, but these appear sufficiently striking. Among the early examples unearthed by the Bureau of Investigation was that of the by-product coke plant established by the Lehigh Coke Co. The latter was a corporation organized by a syndicate represented by the Deutsche Bank. At the time the war broke out it had been in operation for a number of years and was promising considerable success. It had not, however, gone extensively into the manufacture of coal tar and its derivatives. In 1915, however, it established a considerable plant for these purposes. Every ounce of toluol and benzol which was produced was sold under contracts binding the purchaser not to use or permit the use of the product for the manufacture of explosives or for the benefit of the allies. An examination of the correspondence between Hugo Schmidt, the

agent of the Deutsche [76] Bank in this country, and the bank, shows that the entire undertaking represented by this by-product plant was a direct effort by the German Government to prevent the making of these valuable materials for explosive manufacture in the United States, or rather to prevent their use for the benefit of Germany's enemies. The undertaking was decided on because the Deutsche Bank had ascertained that the Bethlehem Steel Co., which had a contract with the Lehigh Coke Co. for the latter's coke and gas, had practically determined to build such a plant for its own purposes, but that this decision might be changed if forestalled by the erection of a plant by the Lehigh Coke Co. This actually occurred, with the result that large supplies of these invaluable coal-tar products were kept out of the munition industry, while the demand for them from other industries was prevented from having its natural effect in bringing into existence American plants which would have been free to supply the allies. This condition continued until just before we entered the war, when the Deutsche Bank, doubtless better informed than most as to the probabilities, sold out the Lehigh Coke Co. to a nominee of the H. Koppers Co., which in turn immediately resold to the Bethlehem Steel Co.

A still more striking instance, uncovered by the Bureau of Investigation under the direction of Mr. Garvan, with the important aid from the Department of Justice and the Secret Service, was that of the organization known as "The Chemical Exchange Association." The purpose, and for a time the effect, of this enterprise was to corner the supply in the United States of phenol, an essential of the explosive industry, and to prevent its use for the manufacture of high explosives (picric acid and trinitrotoluol, or T.N.T.). This undertaking was apparently initiated by Dr. Albert, the financial adviser of the German Government

in this country, in direct collaboration with Von Bernstorff. Dr. Albert carried out the scheme through Dr. Hugo Schweitzer, the chemist [77] and leading spirit of Bayer & Co. (Inc.), the American agent of Bayer, of Leverkusen. The outbreak of the war had instantly stopped the importation of phenol, which was not manufactured to any extent in this country. Mr. Thomas A. Edison, who required large supplies of phenol for the manufacture of his phonograph records, which were made of a synthetic resin of which phenol and formaldehyde were the chief ingredients, immediately set to work to solve the difficulties involved in the manufacture of this substance. By the most strenuous work the problem was solved in his laboratories in a few weeks, and he commenced the manufacture of very considerable quantities, producing a large surplus beyond his own requirements. This surplus would normally have supplied the means for the manufacture of fairly large quantities of the most valuable explosives. To prevent this, Dr. Schweitzer, on June 22, 1915, entered into a contract with the American Oil & Supply Co., which was the selling agency of the Edison works, for practically the entire surplus of phenol available for sale. As security for the faithful performance of this contract, Dr. Schweitzer put up $100,000 in cash, which was furnished to him by Dr. Albert, and also a $25,000 surety company bond. A week later Dr. Schweitzer made a contract with the Heyden Chemical Works (a mere branch of the German house of Chemische Fabrik von Heyden, of Radebeul), of which George Simon, a German subject, was the manager, by which the entire supply of phenol thus purchased was to be taken by the Heyden company and converted into salicylic acid and other harmless medicinal and flavoring products. The arrangement was that the Heyden works were to return to Schweitzer 1 pound of salicylic acid for each pound of phenol

and keep the surplus of the converted product. This involved a very large profit for both parties. In the meantime, to avoid doing business under his own name, Schweitzer registered as a trade name the "Chemical Exchange Association," which was described [78] as a copartnership consisting of himself and Richard Kny. Kny was the father-in-law of George Simon, of the Heyden Chemical Co., and was the ostensible proprietor of the Kny-Scheerer Co., one of the most important manufacturers in this country of surgical instruments. This company, like the Heyden Chemical Works, was a purely German-owned concern, and both have since been taken over by me.

The net result of all this was a profit to the Chemical Exchange Association of $816,000, which was apparently equally divided between Schweitzer and Kny. Schweitzer's share of the profits seems to have gone straight to the German Government, but for some unexplained reason Kny appears to have been allowed to keep his. The attempt to prevent the use in explosive manufacture of American phenol was completely successful for a time. The success of the venture was celebrated in the latter part of 1916 by a dinner given by Schweitzer and Kny at the Hotel Astor in honor of Dr. Albert. Among other guests were George Simon, F. A. Borgemeister, Norvin R. Lindheim, and Capt. Wolf von Igel, of the German Embassy—a typical gathering of the most active German propagandists in the country.

Less striking examples of the same sort of thing might be cited by the score. An interesting instance is the case of Dr. Isaac Strauss, organizer and president of the Chromos Chemical Co. Dr. Strauss arrived in this country in September, 1914, apparently with a direct mandate from the German Government for propaganda among the Jews. He proceeded to establish a periodical known as the "American Jew-

ish Chronicle." Funds to the amount of $85,000 were supplied for his activities by Dr. Albert, and $15,000 by Von Bernstorff, and his chemical company, profiting by the enormous war demand and prices, rapidly began to supply further sinews of war. Shortly after the entry of the United States into the war his conduct attracted the attention of the military authorities, and the ensuing investigation led [79] to his internment, whereupon his Chromos Chemical Co. and the "American Jewish Chronicle" were taken over by me.

At the time when I took office it, of course, became the duty of all companies in which any alien enemies held stock to report such ownership. About half of those American chemical enterprises which are now known to be German owned, complied more or less promptly with this requirement. The rest, mostly relying upon pretended transfers by which the stock had ostensibly been put in the hand of American citizens, paid no attention to the act until the activities of the Bureau of Investigation had disclosed the true facts. In some cases, however, the camouflage which concealed the true ownership was of a much subtler and more effective description. In the case of more than one of the companies which promptly reported themselves as entirely German owned, measures had been taken to transfer, to companies which were presumably beyond the reach of the trading with the enemy act, the essential value of the German property and business.

The most conspicuous instance of this method was Bayer & Co. (Inc.). This company at an early date reported all its stock as held by one of the officers, Mr. Seebohm, for three trustees who in turn held for the benefit of the German parent house. It was, on the whole, the most important of all the German branches. Besides representing, as sales agent, one of the three equal giant concerns at the head of the German in-

dustry, it was the only German branch which had established any considerable manufacture in this country. Through the purchase of the stock of the Hudson River Aniline Works, it had acquired and greatly expanded a considerable plant near Albany, N. Y., in which it produced a few of the simpler coal-tar colors and considerable quantities of pharmaceuticals, especially the most valuable single product of the German house—the drug known throughout the world by its trade name of Aspirin. [80] This was a patented coal-tar product on which enormous profits had been made. Practically the entire management of this company was in the hands of German subjects. The leading spirit, Dr. Hugo Schweitzer, was, as has been stated, among the most ardent propagandist and German agents in the country. The Albany plant represented the expenditure of many hundred thousand dollars, and the enterprise was exceedingly flourishing.

To conceal the profits for the purpose of taxation another company was organized, known as the Synthetic Patents Co. (Inc.), all the stock of which was also held by the German concern, to which were conveyed all the American patents of the German house, approximately 1,200 in number, and all the real estate, including the plant. By contracts between Bayer & Co. (Inc.) and Synthetic Patents Co. (Inc.) almost all of the profits of the former were diverted to the latter in the form of rentals and royalties. The investigation also covered a number of less legitimate evasion of the tax laws, and resulted in the recovery of a large sum by the Treasury.

The militant German character of the men in control of this company was so obvious that the ease with which they surrendered its stock was a matter of some surprise. The explanation was not unearthed until the very thorough examination of the company's affairs by the Bureau of Investigation had proceeded to great lengths. It was then ascertained that on the

entrance of the United States into the war the men in control of the company had foreseen the danger of sequestration of the property. In casting about for a means of meeting this emergency they hit upon a small company which had recently been organized in Connecticut to manufacture dyes. This was the Williams & Crowell Co., established by two gentlemen who had some knowledge but little capital. They had succeeded in producing two or three valuable sulphur colors, notably one highly suitable for khaki, of which enormous quantities were [81] obviously going to be required. The situation of these gentlemen was such that, although their company had been able to produce profits out of all proportion to its capitalization, they were not unwilling to sell, and accordingly the idea was conceived of buying this company with a view to the gradual transfer to it of such of the facilities of Bayer & Co. (Inc.) as could be turned over. The plan was laid before the counsel of the company, Mr. Charles J. Hardy, of New York, who was the chief adviser of most of the German houses in this line of business. He appears to have advised that the company itself could not safely make the purchase owing to the danger of its being taken over by the Government, and that for the same reason the stock of the Williams & Crowell Co. should not be bought by the Bayer directors themselves, since they were alien enemies. At his suggestion a new corporation, known as Williams & Crowell Color Co. (Inc.), was organized in New York and the stock taken in the names of American citizens. Williams & Crowell Co. was at this time making profits at the rate of $50,000 a month and, with the aid of the scientific and business knowledge which could be supplied by the Bayer staff, was in a fair way to immediate and immense success. Indeed, by this simple method, it would have been possible under our very noses to drain the life-blood out of

Bayer & Co. and to transfuse it into the new organization, which the Alien Property Custodian apparently could not touch. The purchase of Williams & Crowell Co., however, required a substantial sum in cash, approximately $100,000, and it was at last possible to prove that the $100,000 thus paid was money of Bayer & Co. (Inc.), and, therefore, of the German parent house.

This was ascertained only after the Bureau of Investigation had discovered that the treasury of Bayer & Co. (Inc.) was one of the great sources from which German propaganda funds in this country were derived. The parent German house had enormous business [82] connections all over the world. It supplied immense quantities of its products to the east, especially to China. After the outbreak of the war, in 1915, payments for these goods could not be transmitted directly to Germany. As many of the goods had been sold on long credit, very large sums still remained payable to the German house many months after deliveries had ceased. The eastern debtors of the German house were, therefore, directed to make their payments to Mr. Seebohm, of Bayer & Co. (Inc.), of New York. These funds, amounting to millions, were accordingly received by him and disposed of without being put through the books of Bayer & Co. (Inc.). What became of most of them can not now be ascertained, as all of such records as may have been kept were promptly destroyed. It was possible, however, to demonstrate that part of the payment for the Williams & Crowell stock came from this source. I accordingly insisted that the stock be turned over to Bayer & Co. (Inc.). This was done, and the Williams & Crowell Co. thus formed a part of the assets of Bayer & Co. (Inc.) at the time of the sale of the latter.

Among other interesting facts in regard to Bayer & Co. (Inc.) disclosed by the investigation was the

great care exercised by the parent house to restrain the manufacture of dyes by its American subsidiary. The purpose apparently was to limit this manufacture absolutely to colors in which genuine American manufacture was already well established. The German house was very glad to increase in this manner the competition with which the American infant industry had to struggle, but it was determined that American manufacture in other lines should not be commenced, even under its own control. When the cessation of imports after 1914 threatened a dye famine in this country, Bayer & Co. (Inc.) commenced to manufacture a few new colors, or rather, colors which were new to the American industry. No sooner did this reach the ears of the German house than the most peremptory letters were written, [83] absolutely forbidding any further extension of the business in this line. The enormous profits possible from such manufacture had no weight with the Germans when compared with the risk that such manufacture might aid the development of a real American industry.

The stock of Bayer & Co. (Inc.) and of Synthetic Patents Co. was sold by me at public auction, the successful bidder being the Sterling Products Co., a West Virginia corporation dealing in proprietary medicines. This company had previously agreed to dispose of the dye plant and patents, in case it secured the property, to Grasselli Chemical Co., one of the largest makers of heavy chemicals in the country. The price paid was $5,310,000, plus back taxes and other obligations of many hundred thousands more. Both purchasing companies appear, on careful investigation, to be thoroughly American.

Two other of the American branches of the six great German dye companies were also taken over at the outset. These were the Berlin Aniline Works and Kalle & Co. These companies were, however, little

more than shells, each consisting almost solely of a selling organization without plant or other valuable fixed capital. In the case of the Berlin Aniline Works, there was an attempt to duplicate on a small scale the Williams & Crowell episode, but the resources available were insufficient. Neither of these companies accordingly had anything of great value to sell, and it has therefore been deemed the wiser course to liquidate them. The patents of the German concerns were in each case held in its own name and not transferred to the American branch.

Having taken over these three of the six American representatives of the German giants, my activities in this direction seemed to have been brought to a halt. The other three did not report any German ownership and on a preliminary investigation seemed to be American owned. A very careful examination of all available materials, however, sufficed to raise sufficient doubt [84] in each case to force the company in question to offer to submit its entire books and records to our inspection, and to provide an audit at its own expense. An extremely thorough investigation was thus made possible, and in each case it has resulted in a demonstration that the stock of the branch was actually, in part at least, German owned.

In its relation to the American industry, the most important of these companies was the Cassella Color Co. This concern, the agent of Leopold Cassella & Co. G. m. b. H., was managed by W. J. Matheson and Robert A. Shaw. Both of these gentlemen are Americans by birth and tradition, but both of them had been for many years wholly or chiefly engaged in the business of marketing the products of the Cassella works. The stock stood on the books of the company in their name, and appeared to have been purchased for actual cash at par in 1913. The transcendant importance

of this company was due to two facts: First, that it had apparently been absorbed by the National Aniline & Chemical Co., Inc., which up to the present has been by far the largest American manufacturer of dyes; and, secondly, that the headship of the new all-inclusive German cartel, including all the great companies, is vested in Mr. Carl von Weinberg, who was for many years president of Leopold Cassella & Co., and closely associated with Messrs. Matheson and Shaw. The importance of these facts was emphasized when the former Cassella organization became the selling department of the National Aniline & Chemical Co., and when Mr. Matheson assumed its presidency. A storm of rumor immediately arose, and it was suggested to me from every side that the National company was at least in part German owned. The facts, however, were found to be as follows: Prior to 1913 the majority of the stock of the Cassella Co. of New York was owned by the German house. In that year the anti-trust suits above referred to convinced all parties interested that it was unsafe to allow the New York agency to continue [85] even in part to be owned by a member of the German trust. Accordingly, the remaining stock was transferred to Messrs. Matheson and Shaw and paid for in cash. An option was, however, reserved. This was reduced to writing so far as it conferred upon the German house the right to take the stock at the book value on the death of either Matheson or Shaw. It was, however, orally agreed that the stock might be taken on the same basis at any time. In the meantime the contract between the German and American companies was so framed that the profits of the company continued to be divided as before, 57 per cent going to the German house and 43 per cent to the American house. The sale, therefore made substantially no difference in the relative rights of the parties. Messrs. Matheson and Shaw

gained nothing which they did not already have in the way of theoretical control of the American house. The German company retained complete practical control of the American house because it could at any moment, by withdrawing supplies, render the American business worthless. The American patents owned by the German house had been assigned to the American company. In most cases, however, reassignments had been executed, but not recorded, so that the real, though not the ostensible, ownership of the patents was in fact still vested in the Germans. The correspondence shows an understanding, the legal effect of which seems to be to continue the German ownership to the extent of 57 per cent in the American company, and I have accordingly demanded and taken over 57 per cent of the stock.

When the dye famine began in 1914, Messrs. Matheson and Shaw determined to commence manufacturing, and for that purpose organized the Century Colors Corporation, this name being selected in order to retain the C. C. C. trade-mark of the Cassella goods. This company was organized with a capital of only $500, and Messrs. Matheson and Shaw took all the stock. The operations of the company were financed to a considerable [86] extent out of the funds of Cassella Co. of New York.

In August, 1917, Messrs. Matheson and Shaw, desiring to dissociate themselves from the Cassella name, caused the Century Colors Corporation to purchase from the Cassella Co. all its tangible assets. On the same date the capital stock was increased from $500 to $200,000, Messrs. Matheson and Shaw paying in the difference. The tangible assets represented everything owned by the Cassella corporation except its patents, good will, and the contract with Leopold Cassella, G. m. b. H., for the sale and purchase of the German products. On September 11, 1917, Messrs.

Matheson and Shaw sold to the National Aniline & Chemical Co., Inc., all of the stock of the Century Colors Corporation. Under this contract, Messrs. Matheson and Shaw agreed to subscribe for $200,000 worth of the National company's stock and to place their own services at the disposal of the National, in return for which the National company agreed to give them 4,000 full paid shares of preferred stock and 40,000 shares of common stock, having no par value. It was also agreed that the existence of the Century Colors Corporation should be continued for at least one year. At this time, in explaining the failure to convey the Cassella company's intangible assets, Messrs. Matheson and Shaw stated in a letter to the National company that they did not feel at liberty to dispose of the Cassella company's intangible assets without first consulting the German house.

After this sale to the National, the personnel taken over from the Cassella and Century Colors companies, rapidly became increasingly important in the National organization. When Mr. Matheson assumed the presidency, the Century staff became to all intents and purposes the National sales department. All this undoubtedly gave to the new organization a color which afforded considerable justification to the rumors of German ownership. Accordingly, the correspondence was examined [87] with the utmost care. This correspondence, including, as it does, many of the letters which passed between Messrs. Shaw and Matheson themselves at a time when neither could have imagined that their transactions would be under investigation, shows that at the time of the sale to the National, both desired not to sacrifice their German connection, and that neither believed with any great confidence in the success of the American manufacturing industry, though they may have believed that the formation of

he National company offered an opportunity for suc-ess in America not theretofore available.

In October, 1917, the Cassella Color Co., in spite of he feeling previously expressed by Messrs. Matheson nd Shaw that they could not properly transfer any f its intangible assets without consulting the German ouse, transferred to the National company a number f important patents. This was done without regard o the existence of the unrecorded reassignments to the erman house. This transfer appeared to be invalid, nd these patents, together with all other patents nown to be the property of the German house, have ccordingly been demanded and are vested in the Alien roperty Custodian.

At the present time there appears to be no German wnership in the stock of the National Aniline & hemical Co., Inc.; the great majority of the stock is eld by the following: Schoellkopf Aniline & Chemical Works (or its stockholders, chiefly members of the Schoellkopf family); General Chemical Co.; Barrett & Co.; Semet-Solvay Co.; W. Beckers Aniline Works; W. J. Matheson; Eugene Meyer, Jr.

A complete working majority of the stock has been placed in the voting trust of which the trustees are as follows: Wm. H. Nichols, president of the General Chemical Co.; H. S. Handy, of the Semet-Solvay Co.; Wm. H. Childs, president of the Barrett Co.; W. J. Matheson; Eugene Meyer, Jr.

[88] A contract has been entered into which will result in the gradual elimination by purchase of the Beckers interest, which has been thought desirable because of Dr. Beckers' German origin. The Cassella Color Co., of New York, has been partially liquidated and its stock has been reduced from $200,000 to $500. The taking over of 57 per cent of this stock will at least permit the elimination of the Cassella name.

The American branch of the great Hoechst Co. had

for many years been conducted by Mr. Herman A. Metz. Prior to 1912, the New York corporation was known as H. A. Metz (Inc.), and a majority of its stock was always owned by the parent house. In that year the German company took over all but 10 shares of the minority stock which had previously stood in the name of Mr. Metz, leaving him the record owner of these 10, the only shares not held by them. At the same time the name of the New York Corporation was changed to Farbwerke-Hoechst, so that the value of the good will might be firmly fixed in the German name. At about this time the antitrust proceedings above referred to were commenced against these companies also. Mr. Metz settled for $40,000 the suit commenced against his company, and proceeded to make strong representations to the German house to the effect that the stock ought to be owned by him so that it could be asserted that the German house was no longer doing business in America. A prolonged negotiation ensued, the Germans being very reluctant to make any change. At last, in the summer of 1913, it was arranged that the 1,990 shares held by the German concern should be transferred on the books to Mr. Metz; that in return he should execute a demand promissory note without interest for the sum of $597,000; that the note should be delivered to the German company and the stock, together with a suitable transfer properly executed, should be deposited to the sole order of the German concern in a Montreal bank, as security for the note.

[89] At this time and for many years previous the American company had been operating under a contract by which the German house appointed it its sole American sales agent and agreed to furnish it with goods, in return for which the profits were to be divided according to an arbitrary scale, irrespective of stock ownership. Under this arrangement the Ger-

mans were to have one-half the profits of the color business and 75 per cent of the profits of the pharmaceutical business, which, owing to the development of salvarsan and novocaine, had become of great importance. In return, and as a check on possible overcharges by the German house, Mr. Metz was to receive a percentage of their profits on the sales to the American company. An irrevocable power of attorney was given to Mr. Metz to vote the stock owned by the German company in the New York house and an option was reserved to the German company to purchase the stock in the event of Mr. Metz's death or retirement.

This contract was continued unaltered after the stock transaction of 1913, and under it the profits were divided as long as it was possible to remit moneys to Germany. There was also an oral understanding between the parties that the note should not be payable except out of the stocks or its proceeds, and that it could not be demanded as long as Mr. Metz should remain president of the company. It will thus be seen that the whole stock dealing produced no change whatever in the rights of the parties. After it, as before, the share in the profits of each party remained the same; power to secure and pass title to the certificates remained as before in the hands of the German company alone; the voting power remained as before in Mr. Metz's hands; in fact none of the incident of ownership was in any way affected by the transaction.

At the outset Mr. Metz filed reports stating the existence of the note and the fact that certain stock was deposited as security for the same, but it was not until [90] the ascertainment of the entire history of the transaction that the proof could be obtained that the transfer was not and was not intended to be of any effect. At last, however, the investigation thoroughly demonstrated this, and the stock has accordingly been taken over by me.

During the course of the year 1916, Mr. Metz, finding that he could no longer secure from Germany supplies of pharmaceuticals, especially salvarsan and novocaine, which formed the most profitable part of his business, determined to enter upon their manufacture in this country. Correspondence with the German house proving unsatisfactory, he sent his brother, Dr. G. P. Metz, to Germany to secure the necessary permission. This permission was refused, but the latter came home with a sufficient knowledge to permit the commencement of the work. A new company was organized under the name of H. A. Metz Laboratories (Inc.), a New York corporation, and this company commenced the manufacture of these two invaluable medicinals, which has been continued since our entrance into the war under license from the Federal Trade Commission.

The agency of the largest of all the German houses, the great Badische Co. of Ludwigshaven, presents perhaps the most striking example of the German methods of camouflage as applied to stock ownership. For many years this company has been represented in this country by Mr. Adolf Kuttroff, who was born in Germany, but came to this country at a very early age, and was naturalized in 1867. In a succession of partnerships and incorporations with various members of the Pickhardt family this gentleman has always conducted the business of the Badische in the United States. In 1906, shortly after the formation of the first German dyestuff cartels, when the parent houses of Bayer and Badische became members of the same body, an attempt was made to combine their agencies in this country. A company called the Continental Color & Chemical Co. was [91] organized in New York and took over the Badische business of Kuttroff & Pickhardt, and the Bayer business of the Bayer Co.'s New York subsidiary, then known as

Farbenfabriken of Elberfeld. At the end of the year, dissensions led to the dissolution of this company and the Badische agency was then taken over by the Badische Co. of New York, a New York corporation. The stock of this company appeared to be entirely owned by Messrs. Kuttroff & Pickhardt, and on its books continued so down to its dissolution in 1917, except for small quantities of stock issued from time to time to the principal subsidiary officers of the company. All this stock, however, was held subject to an option permitting the German company to acquire it at par, and there was an oral understanding that no dividends exceeding 6 per cent should be paid. The balance of the profits, which were considerable, was distributed according to an arbitrary scale arranged by Mr. Kuttroff from time to time among the chief officers of the company. The company was dissolved in 1917 and a new corporation organized under the name of Kuttroff & Pickhardt (Inc.), which ostensibly took over only the physical stock in trade of the old company and its officers. The stock of this new company is held substantially in the same proportions by the same persons who held the stock of the Badische Co. of New York.

It will thus be seen that the ostensible stock ownership of this agency remained unchanged from 1909 until after our entrance into the war. It had thus been so arranged that no change was necessary in order to avoid the Sherman-law suits, nor in order to escape the attentions of the Alien Property Custodian on casual examination of the books. Indeed, the true facts were only ascertained after a most elaborate analysis of the books by highly skilled accountants, and of the available correspondence and intercepted cables by trained lawyers. Suspicion of the company was generally prevalent, but the first definite evidence was derived from correspondence [92] obtained by

the British authorities, which demonstrated that the New York company had been in the habit of asking for the decision of the German house on even such intimate questions of domestic policy as the increase or decrease of minor salaries of the staff. This correspondence indicated a degree of control far beyond that which was attributable to the mere power to stop supplies. It was then ascertained by the accountants that the original $25,000 paid into the Treasury of the company for the first issue of $25,000 of stock came out of the moneys of the German house in the Continental Co. at the time of the liquidation of the latter concern. An intricate analysis also showed that at a time when the original capital stock of the New York Badische Co. was decreased the sums paid out went not to the ostensible stockholders but to the German house. Finally it appeared that on three separate classes of transactions very large sums out of the earnings of the New York house were transmitted to the German house when there was no possible obligation to do so and that this was done by the personal direction of Mr. Kuttroff without consultation with the directors or stockholders. For example: During the year 1915 and 1916 the sum of $701,944.34 was credited on the books of the German house and subsequently remitted under the head of indanthrene royalties. The company had been selling for the German house for years its high-grade indanthrene dyes which it received from the German house at fixed prices which did not include the sums described as royalties. As the goods were manufactured in Germany and nothing was done to them here, no royalty, properly speaking, could possibly be due. If any was payable, it must have been merely as an enhancement of the price. There was no understanding between the companies to any such effect.

Obviously, then, if the companies had been really in-

dependent, the president of the New York concern would never have dared to deprive his own stockholders of any [93] such sums without legal obligation and without even consulting them beforehand. In like manner, in 1914, the sum of $477,100 was credited and remitted ostensibly as a return of advances made years before by the German house for expenses of the New York concern. Here, again, there was no previous understanding or present authorization requiring or permitting anything of the kind. At the time the alleged advances were made by the German house the New York company was operating merely as an agency on commission. There was no conceivable reason why a part of the agency's expenses should not have been met by the principal in the usual way. Yet again, without consulting anyone, Mr. Kuttroff caused these large sums to be taken out of the hands of the ostensible stockholders and put in those of the real owners of the company. Finally, in the case of the goods received by the submarine *Deutschland*, the same process was carried on. These goods when originally received were entered on the books like all other shipments of the German house on a sales basis; that is to say, they were treated as the property of the New York house, and the German house was credited with the price, approximately $800,000. Settlements with the custom house appear to have been made on this basis. Some months afterward a profit of about $400,000 had been realized. The book entries were then reversed so as to bring the transaction back to a consignment basis in which the German house would be entitled to all these profits except a commission. This change was made by Mr. Kuttroff without the authority of the stockholders or directors, and accordingly a sum of nearly $400,000 was made available for a remittance to Germany, and was so remitted. These and kindred transactions have so clearly demon-

strated that the German company was the real owner of the stock of the American Badische company that a demand which is to be issued forthwith will be immediately complied with. This demand, owing to the fact that the company has been [94] dissolved, with result in the taking over of only the assets of the company, which, however, are considerable, but these will include certain profits realized, since the dissolution, by the new corporation of Kuttroff & Pickhardt (Inc.).

From the foregoing it will be seen that the American agent companies bearing the names of each of the six great German dye companies have been taken over. This, it is to be hoped, may interpose some difficulties in the way of any attempt on the part of the latter to reestablish themselves in this country.

The situation presented by the agencies of the German dye companies of the second rank has been less satisfactory. The great Griesheim Elektron Co. was represented in this country by two concerns, Geisenheimer & Co., a partnership between American citizens now dissolved, and A. Klipstein, a corporation of which all the stock was held by two unrelated Klipstein families, all citizens. No trace of real German ownership could be discovered, after the most prolonged and laborious investigation both here and abroad, by all the departments interested, in either of these companies, though the business of both had been largely derived from German sources throughout their existence. The house of Weiler Termeer was represented in this country by the Geigy-Ter-Meer Co., now the Geigy Co., in which, prior to the beginning of 1917, the German house owned 20 per cent of the stock. This stock was, however, transferred before our entrance into the war to the Swiss house of J. R. Geigy & Co., a firm in good standing with the allied governments. It has been impossible to ascertain whether this transfer was in any respect for the benefit of

the German house, but in any case the great majority of the stock of this company is in Swiss and not in German hands.

Among the chemical companies in which German interests existed outside of the dyestuff business, by far the most important was the Roessler & Hasslacher [95] Chemical Co. This was a branch of the great Frankfort gold and silver refining company known as the Deutsche Gold und Silber Scheide-Anstalt vormals Roessler, and was organized by Messrs. Roessler and Hasslacher, two old Scheide-Anstalt employees, who came to this country to introduce the goods of the parent house. From the first, the German concern and its officers and employees owned about three-quarters of the stock of the American house. The latter prospered enormously and built up a very large business. Besides selling the products of the Scheide-Anstalt, consisting chiefly of cyanide of sodium and cyanide of potassium, it built up a very large jobbing business. In 1895 the Niagara Electro Chemical Co. was founded to manufacture metallic sodium by means of the electric power available in Niagara Falls. The sodium thus produced was used for the manufacture of cyanide of sodium in this country, a business which immediately became exceedingly profitable. The stock of this company was divided so that one-third of it went to the Scheide-Anstalt, one-third to Roessler & Hasslacher, and one-third to English interests. This company had a capitalization of $100,000, made fabulous profits, and for the five years before our entrance into the war averaged over 900 per cent in dividends annually.

Meanwhile the Perth Amboy Chemical Works had been established with a capital of $400,000 to manufacture formaldehyde and wood distillation products; 1,960 of the 4,000 shares of this company were held by the Roessler & Hasslacher Co., a similar amount

by another outside German corporation, the Holzverkohlungs Industrie A. G., and a casting vote was left in the remaining 80 shares with Roessler & Hasslacher. In the summer of 1916 the officers of the Roessler & Hasslacher Chemical Co. began to ask the authorities of their parent house to transfer to them more of the stock. The first request was made in a letter which contained a distinct intimation that this change in holdings need not be [96] permanent. In subsequent letters they insisted, as reasons for the proposed sales, that the political situation was very acute; that German-owned property in this country might be sequestered, and that if any of their goods were to be imported and were to get by the British they would have to be able to say that the company which did the importing was not German owned. This proposition met no response. On the contrary, the Scheide-Anstalt officers replied that they did not understand what Messrs. Roessler and Hasslacher wanted; that what they proposed must either be a real or a pretended sale; that if a pretended sale was what was suggested the idea was dangerous; and that if a real sale was meant a price would have to be charged which Messrs. Roessler & Hasslacher would, under no circumstances, be willing to pay. They then suggested that a confidential man should be sent over to explain just what was wanted. The letters of Mr. Hasslacher had, however, left no doubt on this score, as they had asked in the simplest possible language for a sale of the stock and had requested the Scheide-Anstalt to name their price.

In general the letters outlined the proposition as clearly as it could be stated, and the Scheide-Anstalt people can not have avoided fully understanding just what was wanted, except on the supposition that the letters didn't mean what they said and that the real proposition was one which it was dangerous to put on

paper. Their refusal, at all events, even to name a price, was unequivocal. They said in substance, "rather than part with 'the best cow in the barn,' we ought to take every risk of the political situation and trust to fighting our rights in free America." Notwithstanding this discouraging statement, Messrs. Roessler & Hasslacher did send over a confidential man as was suggested. This emissary, Mr. Oscar R. Seitz, a New York lawyer of Swiss descent with some German connections, reached Frankfort on February 1. He brought no letters of introduction, power of attorney or means of identification. The [97] Scheide-Anstalt people did not know for certain that a confidential man was coming, or that if so, it was to be Mr. Seitz; yet he says that after a few brief interviews in which he offered no argument, other than those which had already been stated in the letters from Mr. Hasslacher to his German intimates, the Scheide-Anstalt people agreed to sell to the American representatives the following stock: 3,800 shares of Roessler & Hasslacher, at 200; 140 shares Niagara Chemical Electric Co., at 400; 80 shares Perth Amboy Chemical Works, at 200. No counter-offer was apparently made, and there seems to be no hesitation about the price, nor was there any suggestion of the purchase of the balance of the German holdings. A wireless was then, on February 6, 1917, sent to the New York office, and, upon this wireless, the stocks were transferred on the books of the companies and the necessary $860,000 was remitted to the German house. The stocks thus sold carried with them control of all three of the companies. The price paid represented a book value approximately twice as great, and the average annual dividends for the preceding five years on the three blocks of stock combined figured out at over 39 per cent on the purchase price. As regards the Niagara stock, the book value was

nearly four times the purchase price, while the average dividends for five years figure out an annual return of 225 per cent on the purchase price.

These facts, and a host of additional circumstances likewise pointing inevitably to the conclusion that this sale was not genuine, were brought out in a prolonged proceeding conducted by my representative before the attorney general of the State of New York, who had the power to subpœna witnesses. In the meantime the 47 per cent of the stock of the Roessler & Hasslacher Chemical Co., which was admittedly still German owned, had already been taken over. I thereupon determined, by virtue of the authority conferred upon me by the trading-with-the-enemy act and by the presidential proclamations [98] thereunder, that the stock ostensibly transferred in February, 1917, was in fact still German owned; and accordingly I thereupon issued demands for it. This proceeding will result in the Americanization of the most important German-owned chemical companies outside of the dye industry.

Next to Roessler & Hasslacher in importance among companies of the same class is the Heyden Chemical Works; this was the subsidiary of the Chemische Fabrik von Heyden, of Radebeul, Germany, and manufactures salicylic acid and its derivatives, formaldehyde, saccharin, the medicines usually known by their proprietary names aspirin and urotropin, benzoate of soda, and many other valuable products. Of late years it has become enormously successful. Prior to the year 1917 all the stock was owned by the German company, and in addition the American concern was tied by a contract with its parent house under which all the earnings of the American concern over 8 per cent went to the German house in payment for processes and information. When my investigation commenced, all of the stock except three shares stood in the name of T. Ellett Hodgskin, a New York lawyer, who had

for some time represented the firm. After considerable examination it was ascertained that this stock, which had been transferred just before our entrance into the war, had been paid at par with a sum of $149,000, borrowed by Mr. Hodgskin for the purpose from Richard Kny, father-in-law of George Simon, a German subject and the manager of the company, under an agreement contained in a letter from Mr. Hodgskin to the effect that he would thereafter retransfer it at cost. Richard Kny, it will be remembered, was the partner of Schweitzer in the Chemical Exchange Association, and he was also the ostensible owner of the Kny-Scheerer Chemical Co., which also turned out to be a purely German-owned concern and has been taken over as such. Thorough investigation resulted in the practical admission that this [99] transfer was mere camouflage, and accordingly the stock has been demanded and taken over. Mr. Hodgskin is now under indictment for his participation in similar proceedings in respect to another company. This stock and other rights of the German house in the American company have been sold at public auction to the Monsanto Chemical Works for $605,000 plus taxes and profits of 1917 and 1918, but the sale has not yet been confirmed by the sales committee.

An almost exactly similar situation was disclosed by the investigation of Bauer Chemical Co., a much smaller concern manufacturing pharmaceuticals, especially the widely advertised "Sanatogen" and "Formamint." In this company also the stock, which was really the property of the Berlin house of Bauer & Co., appeared by a fictitious transaction to have passed into the hands of Mr. Hodgskin. The fictitious character of the transaction in this company also has been admitted, and the stock has been taken over.

Another method of concealment was disclosed in the investigation of American Pyrophor Co. (Inc.).

This company was organized in December, 1917, by Charles Ganz, former agent of the Treibacher Chemische Werke, of Treibacher, Austria, and to it Ganz transferred, without authority, the entire business of the Treibacher company in this country, a business consisting of the manufacture of pyrophor, an alloy of iron and cerium, which, when struck or scratched, produces fire and is used for cigar lighters, etc. Here after investigation, the unauthorized character of the transfer was so clearly shown that it was admitted, and upon demand the stock of the company was turned over. In this, as in many other like cases, it was impossible to determine whether the ostensible new owner of the business meant to keep it for the alien enemies or to steal it for himself.

In pharmaceuticals, the most important concern in the world was that of E. Merck, of Darmstadt. This was represented in this country by Merck & Co., a New [100] York corporation which had an enormous and very profitable business in all kinds of medicinal preparations. The stock of this company appeared on the books to be owned exclusively by George Merck, a member of the family which owns the house of E. Merck, of Darmstadt. Investigation, however, showed that the profits of this company had always been remitted to the German house in a manner utterly inconsistent with the apparent stock ownership, and it now stands admitted that the stock was paid for with money of the German house and belongs to the latter. Mr. George Merck insists that he is the real owner of one-fifth of this stock by virtue of the fact that he owns 20 per cent interest in E. Merck, of Darmstadt. I am of the opinion, however, that indirect ownership of this kind can not be recognized under the trading with the enemy act, and I have therefore determined that the whole of this stock is enemy owned and it has accordingly been taken over.

In addition to the above, I have taken over all or part of the stock of the following less important companies engaged in various lines of chemical activity: Charles Helmuth & Co. (Inc.); International Ultramarine Works; G. Siegele & Co.; Williamsburgh Chemical Co.; New Brunswick Chemical Co.; Fahlberg Saccharine Co.; Philipp Bauer & Co. (Inc.); Amid-Duron Co.; Haarmann-de Laire-Schaefer Co.; Jarecki Chemical Works; Riedel & Co. (Inc.); Rohm & Haas; Somerset Chemical Co.; Tropon Works; Gerstendorfer Bros.; German Kali Works; F. Ad Richter Co. The liquidation of the German interests in these companies is proceeding in due course.

The amendment of November 4 to the trading with the enemy act presented for the first time an opportunity for what appears to me to be the most important piece of constructive work which has been possible in my department. Until the enactment of this amendment it had not been possible to take over German patents. These patents, as had been already indicated, formed a [101] colossal obstacle to the development of the American dyestuff industry. Evidently they had not been taken out with any intention of manufacturing in this country or from any fear of American manufacture, which the Germans apparently thought could not be successfully carried on under conditions prevailing in this country in regard to costs and to the supply of technicians and skilled labor. Upon consideration, however, it seemed that these patents offered a possible solution for the problem, hitherto unsolvable, of protecting the new American dye industry against German competition after the war. If they were not taken out in order to prevent American competition they must have been obtained as a weapon against competing imports. If they were sufficient to stop importation of competing Swiss, French, and English dyes, they would presumably serve, in Ameri-

can hands, to stop the importation of German dyes. This was particularly probable in the case of the product patents, since most of the coal-tar dyestuffs are definite chemical combinations to which a product patent is entirely applicable.

The idea was accordingly conceived that if the German chemical patents could be placed in the hands of any American institution strong enough to protect them, a real obstacle might be opposed to German importation after the war, and at the same time the American industry might be freed from the prohibition enforced by the patents against the manufacture of the most valuable dyestuffs. Accordingly, these considerations were laid before various associations of chemical manufacturers, notably the Dye Institute and the American Manufacturing Chemists Association. The suggestion was met with an instantaneous and enthusiastic approval, and as a result a corporation has been organized to be known as the Chemical Foundation (Inc.), in which practically every important American manufacturer will be a stockholder, the purpose of which is to acquire by purchase these German patents and to hold them as a [102] trustee for American industry, "for the Americanization of such institutions as may be affected thereby, for the exclusion or elimination of alien interests hostile or detrimental to the said industries and for the advancement of chemical and allied science and industry in the United States." The voting stock is to be placed in a voting trust of which the trustees are to be the five gentlemen who for months have been acting as the sales committee which passes upon sales made by my department, that is to say, George L. Ingraham (former presiding justice of the Appellate Division, First Department, New York Supreme Court); Otto T. Bannard (president, New York Trust Co.); Cleveland H. Dodge; B. Howell Griswold, Jr. (senior partner of

Brown Bros., bankers, Philadelphia); Ralph Stone (president, Detroit Trust Co.), and the charter is so framed that under the patents non-exclusive licenses only can be granted on equal terms to all proper applicants, and must be granted to the United States free of cost. The company is capitalized at $500,000 of which $400,000 is to be 6 per cent cumulative preferred stock and $100,000 common stock, also limited to 6 per cent dividends. The first president of the Chemical Foundation (Inc.) will be Francis P. Garvan, of the New York bar, to whose clear vision and indefatigable industry I am chiefly indebted in the working out of this plan. By Executive order obtained under the provisions of the act, I have sold to this company for the sum of $250,000 approximately 4,500 patents, the remaining $250,000 has been provided for working capital so that the company may be able to commence immediately and prosecute with the utmost vigor infringement proceedings whenever the first German attempt shall hereafter be made to import into this country. The charter of the corporation provides that surplus income is to be used for the retirement of the preferred stock and thereafter for the advancement of chemical and allied science and industry. The price thus paid was necessarily determined somewhat arbitrarily; [103] the great majority of the patents were presumably valueless. The value of the remainder was entirely problematical and impossible to estimate. Substantially the entire industry having combined for the purpose of this purchase, it would have been impossible on public sale to find as a bidder any legitimate manufacturer. No other bidder could, therefore, have been found on public sale exeept some speculative individual who might have bought them for purposes practically amounting to commercial blackmail. The combination was not objectionable to public policy since it was so

organized that any genuine American, whether a stockholder of the company or not, could secure the benefits of the patents on fair and equal terms.

It is submitted that the organization of this institution constitutes the most important step that has been taken for the protection of the new industry. Tariff protection has proved utterly unavailing in the past. The German industry as hitherto organized, and still more as now organized, has had so much to gain by extending its foreign trade and by destroying the industry in other countries that it would undoubtedly give away its goods in this country for nothing in order to recover the American market. The Chemical Foundation, however, should prove a power sufficient to discourage in a most effective manner any German attempts in this direction. If, as their newspapers boast, the Germans have during the war worked out entirely new dyes superior to their past productions, the protection afforded by it will be invaluable. It has been the uniform experience of the industry that the introduction of new classes of dyestuffs follows only several years after the patenting of the original inventions on which their manufacture depends. Accordingly, the later dyes of today depend largely upon the patents of three or four years ago. The patents transferred to the Chemical Foundation include many German patents of 1917 and even of 1918, and also many applications still pending. These patents undoubtedly [104] include the results of the research upon which must be based the manufacture of any new dyes which the Germans are now able to produce and market. Accordingly, at the very least, the institution will be able to protect the American industry for a considerable period, and this should be all it needs. It appears to be the universal view of the more competent manufacturers in this country that, given five years of freedom from German compe-

tition, the American industry can hold its own. Probably only a measure such as the embargo which appears to have been imposed by the British and French against all foreign dye importations can furnish this protection to the degree necessary to insure the safety of the American industry; but short of such an embargo, the Chemical Foundation would seem to furnish all the aid that possibly can be given.

At the same time the new institution promises an incalculable benefit not only to the dye and chemical industries but to the whole American manufacturing world. The opportunities which it can offer and the rewards which it can hold out to competent research scientists should far exceed those of any institution unconnected with industry, and it may well, therefore, form the nucleus of the greatest research organization in the country.

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CHAPTER IV.

WIRELESS.

The development of the German marine coincident with German commercial penetration into foreign countries required that the best system of direct communication, especially between ship and shore, should be found and adopted. In the decade prior to the general war, inventors and scientists all over the world were seeking to develop wireless communication and so German science undertook to experiment with the art. The underlying ideas in wireless communication were the fruit of other than German minds, but, as in many other fields, the Germans experimented with and patiently developed these ideas.

The inherent difficulties in the art, the widely varying systems on which experiments were proceeding, the immense costs attending experimental work and the lack of certainty in the results achieved, had delayed the commercial use of wireless, and it was not until a few years before the European war that German enterprise undertook the construction of a trans-Atlantic station. About this time the English Marconi Co. undertook the ambitious scheme of linking up the British dominions throughout the world by wireless stations, including a trans-Atlantic station.

In the prewar period it must have been at once apparent to the Junkers that all communication with America would be cut upon England's entry into the war, unless some means independent of cable or ship was established. The danger of a severance of communication was obvious. In America was a great Nation whose reservoir of men, money, and munitions would decide the war against Germany if thrown into the scale against her. In America was the only great neutral to whose opinions the world would give heed. In America was a great body of German-born citizens upon whose attachment to their native country great dependence was placed for aid both in moulding American opinion and in giving to Germany the financial and material aid which she needed if the war lasted beyond a few months. In America Germany knew the allies would find a source of supply of goods, machinery, and munitions which would help them in ever increasing measure to overcome the handicap of unpreparedness under which they labored. From America, also, must proceed communication to all other neutrals in the Western Hemisphere.

The war plotters found in a trans-Atlantic wireless station the sole means of overcoming the British control of the seas and of maintaining their touch with

America, and from 1910 to 1914, there were begun and completed two high-powered wireless plants, one at Sayville, Long Island, and the other at Tuckerton, N. J.

The Tuckerton station was built by Hochfrequenz Maschinen Aktiengesellschaft fur Drahttose Telegraphie (commonly called Homag), a company organized in Berlin and managed by a retired admiral of the German navy, and by Rudolph Goldschmidt, who claimed to be the inventor of the transmitting system (Goldschmidt high-frequency generator) used in the plant. This plant was designed to connect with Eilvese on the German side.

The Sayville station was built by the Atlantic Communication Co., a New York corporation, and there was no ostensible connection with Germany. The system used in this station was the so-called "Telefunken" system, and the plant was designed to connect with the high-powered Telefunken plant at Nauen, near Berlin. Both Nauen and Eilvese were controlled and operated by the German post office.

Thus, practically side by side, there were being erected by German funds two stations intended to communicate with Germany and using different systems, thus insuring contact if either system was effective. It is a curious incident in the wireless situation that the Goldschmidt or Homag Co. entered into a contract to sell the Tuckerton plant to a French company known as Companie Universelle de Telegraphie et de Telephonie sans Fil (abbreviated to C. U. T. T.). After vast sums had been paid by the French company, the war broke and "Homag" on one pretext or another, withheld delivery of the plant and used it to communicate with Germany and this in spite of the fact that it was beneficially owned by the French. The litigation arising respecting this use of the plant and

the complaints made by the French of this misuse of their property resulted in the United States, through the Navy Department, taking control of the plant in September, 1914. Our Government could not (in observance of neutrality) prevent the use of the plant to communicate with Germany, but it could and did prevent it being exclusively so used and secured to the French some rights in the property pending the termination of the litigation.

There is available information that the great electrical companies of Germany had a working understanding with the Homag Co. and did not resent the apparently serious competition of the Tuckerton plant with the Sayville plant, which they built. Their complacency can be explained if one accepts the thought that both plants were part of the German scheme of world domination. Sayville, as stated above, was a Telefunken plant. Telefunken was the popular name of the combination made only in the wireless field by the two great competitors in the electrical field in Germany. These were Allegemeine Elektrizitats Gesellschaft (commculy called A. E. G.) and Siemens & Halske. The combination organized two companies known as Deutsche Betriebsgesellschaft für Drahtlose Telegraphie (commonly called Debeg) and Gesellschaft für Drahtlose Telegraphie. The manager of Debeg was Hans Bredow.

When my office, through the Bureau of Investigation, inquired into the affairs of Atlantic Communication Co., it was learned that substantially all the stock stood in the names of Hans Bredow and Gesellschaft fur Drahtlose Telegraphie. A small allotment stood in the name of an American citizen who had large business relations with Germany. In due course, I seized the controlling stock of the Atlantic Communication Co. as enemy owned and installed directors and began a searching investigation into its affairs.

Prior to my seizure of the stock of the company the Government had taken over the operation of the physical plant. In 1915, on complaint of unneutral communications, the Navy had installed censors at the plant and had later made a lease of this plant, as it had of others, and installed its own operators. Of course, when the United States entered the war the Navy used the plant as an instrumentality of war, and entirely prevented the use of the plant for other than Government purposes.

The general investigation of the wireless field by my office and by other Government agencies disclosed that the Telefunken system had been installed on German shipping and on our own coastwise fleets, and had been operating with great success in conjunction with the Sayville plant. The English competition had been successfully met, and German stations had been installed in Cuba, Mexico, Central and South America. A high-powered plant had been erected at Togu, Africa, and China and Dutch East Indies and also the Pacific Islands had been sprinkled with Telefunken ship-to-shore stations.

An American appearance had been given to Telefunken in America by the organization of the Atlantic Communication Co. and the naming of a directorate of American citizens. The technical work, however, and the disbursement of moneys were in the hands of German agents. Telefunken engineers came over to install the plant and operate it, and the cost of construction was paid through Dr. Karl Georg Frank, agent in the United States for Siemens-Halske and Siemens-Schuckert Werke in the case of the Sayville station. Mr. Emil Mayer was the agent of the Homag Co. in the installation of the Tuckerton station. Mr. Mayer was interned in April, 1917. The importance and urgency of German wireless plants in America is evi-

denced by the expenditure of over half a million dollars on the Sayville plant at a time when its revenues from commercial use were comparatively negligible.

The farsightedness of the German wireless policy was evident on the outbreak of the general war. The vast expenditure on Sayville and Tuckerton and on the shore-to-ship stations was immediately justified. These instruments of warfare on the allies functioned efficiently. Despite the immediate cutting of the German cables and despite Great Britain's vast preponderance on the sea, Germany was able, while a ship floated, to keep in touch with it, and was able to begin at once the effort to influence American opinion.

Germany in fact made the widest governmental use of the Sayville plant prior to Von Bernstorff's departure. The German ambassador had kept in touch with the war office at Berlin constantly, and Dr. Albert and Hugo Schmidt and Richard Timmerscheidt were in receipt, through Sayville, of detailed orders governing their acts for the German Government and the German banks respectively. The file of radiograms kept by the Navy officials furnished a perfect mine of information to the Government, and to my office especially.

During the period between August, 1914, and March, 1917, the commercial use of Sayville and Tuckerton Stations was enormous. For the first time, it showed a return of the money invested. My Bureau of Investigation learned that during this period there had been sent and received thousands of messages relating to German-owned property in this country and the whole file was indexed and searched, and as a result of months of work, millions of dollars' worth of property not reported was discovered and seized by me. In cases of the most careful concealment, it was

generally found that some radiograms had been received or sent which, when produced, nullified the whole scheme and put my office in possession of facts warranting action.

Other departments of the Government have learned that through the wireless propaganda and sabotage instructions were forwarded to German agents and spies; millions of German war loans were sold and the funds transmitted; and American public opinion for a long time influenced. It is asserted that the instructions to destroy the interned German ships were thus conveyed. As an instrument of politics and war the wireless stood out preeminent.

My Bureau of Investigation found that the Telefunken interests had pursued the usual German course in respect to the wireless patents. The ownership of the legal title remained in the German company. The Atlantic Communication Co. had only a license to use the devices and so the wireless development here was always under German control. In due course, I seized all the German interests in these patents and disposed of them concurrently with the rights of the Atlantic Communication Co. In three cases the legal title to the patent or license was in the Atlantic Communication Co. This was due to the fact that the rights had been acquired after the plan to give an American appearance to the wireless enterprise had been some time in operation. Two of these three rights were of substantial importance. One (the Seibt patent) covered an important unit of a wireless transmitter; another (the Vreeland license) a receiver of wireless impulses. The third was of minor value, but of interest because it was the invention of Reuthe, a Telefunken engineer, who had worked it out at Sayville. Reuthe afterwards went to Mexico and is said to have been in charge of German wireless interests there.

When war with the United States was imminent, some of the Telefunken representatives in Atlantic Communication Co. organized a new company under the laws of New York and called it the New York Patent Exploitation Corporation. They induced a number of persons to become stockholders, and thus had a company in their control which was one step further from Telefunken and Germany. To this new company there were transferred the three patent rights (and none other) which have been described as being in legal ownership of Atlantic Communication Co. The inclusion of the Reuthe patent with the other two which were of actual use indicated that the purpose of the transfer was to get into more clearly American hands all the patent rights that could not be controlled by reason of the German ownership of the legal title. The purpose was not "exploitation" (as the name suggests) but protection. This seems the more clearly shown by the failure of this new company to make any effort to acquire other devices which would permit the use of the three devices it owned.

There is evidence that the Telefunken interests had on foot a comprehensive scheme of consolidating all the wireless patents. They were dealing with De Forest, with Marconi, and with the National Electric Signaling Co. The consolidation was put forward as a means of putting an end to ruinous patent litigations, but in all the plans the Telefunken interests were to have a majority of the stock of the holding company.

After consideration of the facts respecting the New York Patent Exploitation Corporation, an offer was made to the stockholders to turn over their stock at the amount invested in it with 6 per cent interest. This offer was accepted. The New York Patents Exploitation Corporation then entered into negotiations

with the United States Government to sell to it the three patent rights described. I had learned that the Navy Department had acquired a number of wireless patents and properties and was contemplating other purchases. The instant need of Government use and control of wireless shore communication seemed to have been demonstrated by this war and I offered the rights acquired by me simultaneously with the offer of the New York Patent Exploitation Corporation. The directors of the Atlantic Communication Co. also entered into the negotiations with the result that there was conveyed to the United States of America, through the Navy Department, the entire Sayville plant and all the patent rights of the Telefunken (German) company and also of the two American corporations.

The effect of the work of my department is that Germany has been wholly excluded from the wireless field in America; has been substantially hampered in communication by wireless to the south; and can only after long effort and at great expense and by development of a new system, recover (if she can recover at all) an independent position in the Western Hemisphere. Our Government in turn is free from the domination of any privately owned system.

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CHAPTER VII.

ENEMY INTERESTS IN AMERICAN MANUFACTURING CONCERNS.

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HAMBURG-AMERICAN AND NORTH GERMAN LLOYD DOCKS.

Shortly after the outbreak of war between the United States and Germany, the United States Gov-

ernment commandeered the docks at Hoboken formerly used by the two German government-controlled steamship lines—the Hamburg-American Line and the North German Lloyd Line. These enemy-owned docks have been used as embarkation points by the United States in the prosecution of the war.

These docks are the largest and best equipped docks for ocean liners not only in the port of New York but in the United States. As long as this strategic point remained in German control, the door was open to Germany the moment after the declaration of peace to renew its commercial warfare against the United States.

Therefore, the President, under the authority of an act of Congress approved March 28, 1918, took over the title and possession of these docks for the United States and by proclamation dated June 28, 1918, determined and declared the compensation for the docks of the North German Lloyd Line to be $4,831,705, and for the docks of the Hamburg-American Line $2,314,877. This compensation was based on a report made on a careful appraisal of the property by qualified persons.

Neither the North German Lloyd nor the Hamburg-American Line directly owned the fee to the docks, but controlled them through two subsidiary corporations, the North German Lloyd Dock Co. and the Hamburg-American Line Terminal & Navigation Co., respectively, both New Jersey corporations.

In the case of the North German Lloyd piers, however, the North German Lloyd Dock Co. had made a lease for 999 years back to the North German Lloyd Steamship Co. at a rental sufficient only to cover the carrying charges, including the taxes, insurance, and interest on an outstanding mortgage. For this reason the value of the property lay in the enemy lessee's

interest in the lease, the reversionary interest in the dock company being only of nominal value. The compensation awarded by the President for the North German Lloyd piers has therefore been paid directly to the Alien Property Custodian and deposited by him in the Treasury to be invested in liberty bonds.

In the case of the Hamburg-American piers, however, not only the title but the real value of the piers was owned by the Hamburg-American Line Terminal & Navigation Co., the New Jersey corporation. The compensation awarded by the President for the Hamburg-American piers will, therefore, be paid directly to the dock company after the payment of all liens and other charges upon the property. As the Alien Property Custodian has taken into his possession, as the property of the Hamburg-American Line, all the outstanding capital stock of the dock company, the entire net proceeds of the enemy interest in the Hamburg-American piers will likewise come into the hands of the custodian and be invested in victory bonds.

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CHAPTER XII.

BUREAU OF TRUSTS.

FREDERICK J. HORNE, *Director.*

The Bureau of Trusts performs three of the principal functions of the Alien Property Custodian.

First, To prepare demands for enemy property.

Second, To receive such property in pursuance of a demand, petition, order, or decree of court, or license, and to conserve, administer, and account for such property.

Third, To distribute such property in pursuance of the provisions of the trading with the enemy act, Executive orders of the President and acts of Congress.

The bureau was originally composed of nine divisions and seven departments. During the year the number of divisions and departments was reduced by consolidating those performing similar functions, and there are now seven divisions and four departments. Divisions and departments are subdivided into sections when necessary. It is proposed during the coming year to continue the consolidation of all branches of this bureau which perform similar functions, and to eliminate all unnecessary subdivisions in order that the business of the bureau may be more efficiently transacted.

The divisions are the instrumentalities through which the bureau performs the functions of preparing demands for and receiving, holding, administering, and distributing such property.

The departments serve as clearing houses for the several divisions, and as sources of information and advice about the different kinds of property.

The divisions were created for the purpose of dealing with properties in accordance with the sources from which they were reported, such as, for example, the Division of Insular Possessions, which has jurisdiction of properties in the insular possessions and Territories of the United States; the Division of Court and Private Trusts, which has jurisdiction of properties in the hands of trustees, executors, administrators, or under the control of the courts; the Division of Accounts, which keeps all books of account; the Division of Corporation and Individual Property, which has jurisdiction of the stock of American corporations whose stock is enemy owned, and of enemy

partnership interests, and commodities, and all other properties not in the jurisdiction of the other divisions; the Division of Patents, which deals with royalties and patent rights, etc.; the Division of Neutral Countries, which has charge of properties reported by persons residing in neutral countries or in countries associated with the United States in the prosecution of the war; the Division of Insurance, which has jurisdiction of stock in American insurance companies, and over liquidations of enemy insurance companies.

The functions and methods of the several divisions and departments are described more particularly hereafter.

For convenience the word "Report" as used herein includes reports of enemy property, orders or decrees of court, petitions and licenses. The general procedure of the bureau may be stated briefly as follows:

REPORTS, COURSE TAKEN.

Reports of enemy property are received by this bureau after they have been examined and passed upon by the Bureau of Investigation for sufficiency, execution, and enemy status. A trust number is given for each enemy, and reports are then assigned to the appropriate division, according to the character of the property reported, and the source from which such report has been received.

The division chief then assigns the reports to the various referees (who are attorneys) in his division. The referees determine whether or not demands should issue for all or any part of the property reported. In making this determination, the referee applies to the facts in each trust the general policy of the custodian, and such rules as have been laid down to determine the form and substance of the demands.

If doubtful questions arise, the division chief is consulted, and if he in turn is in doubt, such questions are referred to the director of the bureau. If additional facts are required, the Bureau of Investigation is called upon, and if questions of law arise the advice of the Bureau of Law is obtained. Questions of general policy not covered by instructions and rules already laid down are presented by the director of the bureau to the noonday conference, which is held daily by the custodian, managing director, and directors of the several bureaus, and the decision made at the noonday conference is followed by the referee.

If it is determined that the property should be demanded, the referee prepares a demand, which is submitted for approval to the chief of the division. When approved by him, the demand is certified to the alien property custodian for execution by him or by the managing director. When executed, the demand is returned to the referee (if a depositary is not required) and the referee is charged with the service of the demand, the receipt of the property demanded, the certification of all receipts to the Division of Accounts, and the preparation and certification of an acquittance which is executed by the custodian or by the managing director and returned to the referee to forward to the person from whom the property was received. All money and securities of the United States are deposited with the Treasury, and depositaries are designated only for other properties.

When demands are prepared for property for which a depositary is required, a recommendation for the designation of a depositary is attached to the demand when it is sent to the Alien Property Custodian for execution. When the demand has been executed, it and the recommendation for a depositary are sent to

the depositary and inventory department, where a notation is made showing whether or not a depositary has already been designated for other property of the same enemy. The recommendation is then sent to the managing director, who designates a depositary, and in pursuance of that designation the depositary and inventory department prepares a formal designation, which is sent to the depositary with the demand, and with full instructions to guide the depositary in the service of the demand, and the taking possession of the property demanded.

The depositaries serve such demands, receive the property demanded, forward all cash items to the Bureau of Trusts, and prepare and forward an inventory of all other property received in pursuance of the demand. When the inventories are received by the bureau, they are entered on the inventory record of the depositary and inventory department, and controlled from that department while they are being checked against the original reports by the divisions. When such inventories are approved by the divisions, they are sent to the appropriate departments, where the properties are entered on the records of such departments, and appraisals made of the values of such property, whereupon such inventories are sent to the Division of Accounts, and the description and appraised value of the properties entered in the books of account. The departments keep appropriate records, indicating the dividend and interest periods, and the maturity of securities, expiration of leases, etc.

All matters relating to the administration of such properties while in the possession and under the control of the Alien Property Custodian are in charge of the several divisions, which receive information and advice from the several departments.

All reports covering property of the same enemy are consolidated under one trust number, in one trust, and wherever possible, are placed in charge of one division and referred to one referee.

All formal matters relating to the administration of the trust, such as holding and conserving enemy properties and collecting the income and principal when due, matters of insurance, taxes, leases for not longer than one year, etc., are managed by the depositaries under rules and regulations made by the Alien Property Custodian, which have been summarized in a Manual of Instructions to Depositaries, a copy of which is appended to this report. (See Appendix 9.) All receipts of principal and income from properties held by the depositaries are reported and remitted quarterly. Quarterly reports of the depositaries are checked by the departments, and if there are errors therein, the departments co-operate with the divisions for the purpose of obtaining correct reports.

If unusual questions arise in the administration of properties in the custody of depositaries, such as renewals of leases, sales of property, reorganizations requiring the deposit of stock or defaulted bonds, the referee in charge of a trust receives from the appropriate department all necessary information, and thereupon submits such questions to the director of the Bureau of Trusts for final action.

Whenever the records of the Bureau of Trusts show that approximately 15 per cent or more of the capital stock of an American corporation has been demanded, and is held by the Bureau of Trusts, a statement of such holding is made by the Bureau of Trusts to the Bureau of Sales by furnishing such statement to the Corporation Management Division of that bureau.

The Alien Property Custodian has determined

that as rapidly as possible all of the stock in all of these American corporations held by him, and thus reported to the Bureau of Sales, shall be sold by that bureau. Whenever such sales are effected, and the final payment of the purchase price is made, a request for the delivery of the certificates representing or evidencing the stock sold, is made by the Director of the Bureau of Sales upon the Director of the Bureau of Trusts, and upon approval of such request by the Alien Property Custodian, evidenced by his indorsement, an order upon the depositaries for the delivery of such certificates is executed by the Director of the Bureau of Trusts. This order directs that such certificates be delivered to the order of the Director of the Bureau of Sales, and is sent by the Director of the Bureau of Trusts to the Director of the Bureau of Sales, in order that he may complete the sale by delivery of the property sold. The net proceeds from such sale, after payment of the expenses of the sale, is then transmitted by the Bureau of Sales to the Bureau of Trusts, together with an accounting approved by the Director of the Bureau of Sales, and the Alien Property Custodian.

When an enemy interest in a copartnership has been reported, the enemy interest is demanded, whether license has been issued or not by the President to the nonenemy partners, but when such license has been issued, the demand is prepared in conformity with and subject to the terms of such license. After the demand has been served, the referee prepares a recommendation for the appointment of a manager, or supervisor, to be made by the custodian, and sends the recommendation, together with a warrant of authority, which enumerates the powers to be given such manager, or supervisor, and prescribes his limitations,

to the Bureau of Law, to have the legal sufficiency of the warrant determined. If approved in the Bureau of Law, the recommendation and warrant are then forwarded to the Alien Property Custodian for execution. After the appointment of a manager or supervisor has been made, and his salary has been fixed by the custodian, and the warrant of authority executed, the referee requests the Bureau of Audits to make such audit of the partnership or enemy interest as the facts in the trust require, and he then sends to the manager or supervisor a copy of his appointment and of the warrant of authority, and furnishes both to the manager or supervisor, and to the Director of the Bureau of Sales, a full statement of the facts in the trust, including copies of all reports, demands, and other important papers. The Bureau of Sales, with the assistance of the manager or supervisor, then takes charge of the case until return of sale of the enemy interest is made to the Bureau of Trusts. The return of sale and accounting for net proceeds is handled in the Bureau of Trusts in like manner as described in the case of a sale of stock.

When commodities are reported, the referee handling the trust first ascertains from the reporter, if necessary, the kind or nature of the commodities, where located, their present market value, and invoice value, if any, and what liens exist against the same. After procuring this data, the facts are made known to the Director of the Bureau of Trusts, who passes upon the advisability of demanding the property. When a demand is executed for commodities for which warehouse receipts or other evidences of ownership are outstanding, a depositary is designated for such receipts. After service of the demand the Bureau of Trusts prepares and transmits to the Bureau of Sales a full statement of all information in the trust files about the commodities and requests that

bureau to promptly sell such commodities. The Bureau of Sales thereupon sells such commodities and accounts for the proceeds to the Bureau of Trusts as in sales of other property.

If the commodities are not to be demanded, docket entry is made noting this fact, and the authorization by the Director of the Bureau of Trusts in this regard, is filed with the original report.

These three features of enemy-owned capital stock, enemy interests in copartnerships, and enemy-owned commodities are handled in the Bureau of Trusts by the Division of Corporation and Individual Property, the Division of Neutral Countries, Division of Insular Possessions, and the Division of Court and Private Trusts, under the procedure above described.

* * * * * * * *

DIVISION OF PATENTS.

The character of the business administered in matters relating to patents, also trademarks, prints, labels, and copyrights, all of which are to be understood as included under the general term "patents" wherever that term is employed herein.

No issue has been raised in instances where American users of patents are operating under contracts with or from enemy owners of United States patents as to whether such contracts are valid or were suspended or absolutely terminated or lapsed after war was declared by the United States. The policy has been to demand all royalties accumulated and accruing from time to time until license was obtained by such users from the War Trade Board or the Federal Trade Commission. As the best measure of the value of the use of the patent there has been taken the arrangements made before the war and when conditions were normal between the user and the owner as to royalties or consideration.

Reports monthly, quarterly, semiannually, or annually, depending upon the nature of the case and the convenience of the user of the patent and of this division, have been required on special form in the nature of a questionnaire eliciting the source of the royalty, method of its measurement, selling price of the commodity, its general character, and cost of production. This is subscribed under oath and is comprehensive in character and embraces questions bringing out full information in the manner desired by the division.

Prior to the revocation by the President, on April 11, 1918, of the power enabling persons in this country to communicate with enemies, as provided for in the act regarding patents, no money belonging to enemy representatives or correspondents of American attorneys in patent matters was demanded. Since such revocation, however, such money has been demanded.

No demand was made for a patent rights prior to the amendment of the act approved November 4, 1918. Since the passage of this amendment, however, the Division of Corporation and Individual Property has made demands for patent rights where such were among the assets of corporations whose majority stock was enemy-owned and has been demanded, the amendment empowering the Alien Property Custodian to demand the transfer and assignment of enemy-owned patents, or even to seize them outright.

The Federal Trade Commission is vested with the executive administration of subsection (*c*) of section 10 of the act and may grant licenses, either exclusive or nonexclusive, as they deem best, provided in their opinion to grant such is for the public welfare and that the applicant is able and intends to manufacture, etc., a machine, etc., the patent of which is owned by an enemy. Such licenses may be granted to any citizen of the United States or any corporation organized within it. Where the public welfare is involved, the Federal

Trade Commission prescribes the condition of the license, including the fixing of prices of productions necessary for the health of the military or naval forces of the United States or the successful prosecution of the war, and fixes the fees to be charged therefor. The licensee is required to pay, at such times as may be ordered, to the Alien Property Custodian a sum not to exceed 5 per cent of the gross sums received by him from the sale or use of the patent or 5 per cent of the value of the invention. This sum must be deposited by the Alien Property Custodian forthwith in the Treasury as a trust fund for the licensee and for the owner of the patent, out of which the claims of the owner may be wholly or partially satisfied under judicial proceedings, as provided in subsection (*f*) of section 10 of the act. The commission requires the licensee to file semiannually, on January 1 and July 1 of each year, and oftener if necessary, a full statement of the extent of the use and enjoyment of the license and of the prices received from the sale or use of the subject matter of it, and that within 30 days thereafter the licensee pay to the Alien Property Custodian the sums referred to above. Usually about 30 days in advance of the time the licensee is required to remit the commission advises the Alien Property Custodian of the date when remittance should be in hand. This advice is treated in the same respect as a formal report and given a trust number and administered as in the case of reports concerning other property belonging to enemies.

In certain cases where before the war persons were representing foreign owners of United States patents, later defined as enemies under the act, such persons, however, not manufacturing or operating under the patent, but representing the owner merely as agents, and sublicensing American users of the pat-

ents, the Federal Trade Commission, and/or the War Trade Board, for the convenience of the Alien Property Custodian, granted licenses for the American agent to continue such representation, generally under the same conditions in force before the war. In other respects such licenses were on the same terms and conditions as to the Alien Property Custodian as licenses granted in other instances by the Federal Trade Commission or the War Trade Board. This division has advised persons who operated under a prewar contract to obtain a license from the Federal Trade Commission or the War Trade Board.

In all cases where patents were producing royalties the division has systematically collected such royalties, and kept a careful account thereof. The public has been consistently advised against, and discouraged from, treating enemy-owned patents as legitimate prey.

The following is in agreement between the Alien Property Custodian and the Federal Trade Commission—since April 26, 1918:

(1) The Federal Trade Commission will issue no licenses covering patents which are owned or controlled by a citizen of the United States residing in the United States, either as an individual, partnership, or other body of individuals.

(2) Before proceeding to the sale of any patents, control of which has been taken by the Alien Property Custodian, he will notify the Federal Trade Commission so as to give the latter the opportunity of expressing its views as to the desirablity of the issuance of licenses.

(3) Should it be determined by the Federal Trade Commission and the Alien Property Custodian that it is desirable to issue licenses, such licenses shall be issued by the Alien Property Custodian directly or by him through his representatives in charge of the business to which the patents belong.

(4) The Federal Trade Commission will issue licenses covering the use and operation of enemy-owned patents, unless it appears upon investigation that rights under such patents are vested in citizens or residents of the United States, in which case the matter will be taken up in conference between the Alien Property Custodian and the Federal Trade Commission.

(5) That the Alien Property Custodian and the Federal Trade Commission will cooperate by exchanging information in relation to patents and licenses.

It is believed that a great many enemy-owned patents bearing royalties have not been reported here. Among licensees under prewar contracts, the impression seems more or less current that they are not required by the act to file reports or to secure licenses from the Federal Trade Commission or the War Trade Board. When it is borne in mind that there are granted annually by the United States, approximately 35,000 patents, and that a search in the Patent Office for undisclosed enemy patents would require going back a period of 17 years, and that the results of such a search, even if made, would not be conclusive, since a patent issued in the name of a person now an enemy under the act, may have been heretofore and previous to the war assigned in good faith to an American citizen or a nonenemy; and that, on the other hand, a patent issued in the name of a citizen of the United States might, by like subsequent transfer, have its beneficial interest or even its legal title now in an enemy, the difficulties and the magnitude of the task of trying to get in complete report and data on enemy-owned patents can be appreciated.

The relation of this division to other divisions and the method of making demands, keeping records, and general procedure, is the same as that obtaining in other divisions. It should be observed that demands, previous to the amendment of November 4, 1918, hereinafter referred to, being chiefly for royalties, were for cash items.

The activities of this division during the first few months of its existence were greatly restricted and considerably hampered by the very narrow powers given to the Alien Property Custodian under the act as it stood prior to its amendment. The custodian

was by the act virtually confined to the collection of royalties accruing under licenses granted by the Federal Trade Commission, or existing by virtue of prewar contracts, and to exercising general supervision over the administration of the patent and similar properties owned by the several companies controlled by the custodian by virtue of his stock ownership as outlined above. In pursuing this line of activity the patent division, cooperating with the Bureau of Investigation, caused a large number of existing licenses to be reported and has collected considerable sums of money as royalties under existing licenses and under licenses issued by the Federal Trade Commission. The royalties collected under existing licenses established by prewar contracts form part of the general fund deposited by the custodian in the Treasury, but the sums collected under licenses issued by the Federal Trade Commission are subject to the provisions of section 10 of the act.

(Note: Portion of Chapter XII from here to end of third paragraph on page 2212 included in Exhibit 2 to answer.)

When the policy of Americanizing German-controlled industries in the United States was determined upon, and the amendment of March 28, 1918, permitting the sale of enemy property in the United States to American citizens was enacted, it became apparent that in the great majority of cases no thorough Americanization of [105] the several industries could be effected unless the custodian was placed in the position of being able to seize and sell to American purchasers the patents upon which the industries in this country were based.

The great majority of enemy-owned industries in the United States are chemical or manufacturing industries producing patented products under United States letters patent which cover inventions originated in Ger-

many. It may be stated that of the approximately 200 corporations controlled by the Alien Property Custodian, at least 125 are manufacturing corporations, manufacturing patented articles, and that of these 125 at least 75 manufacture under patents owned or controlled by enemy aliens. Investigations showed that the usual course pursued by an enemy in establishing a business in this country was to incorporate an American company, the stock of which the enemy controlled, and to issue a license to the American company under patents owned by the enemy. In this way the enemy was enabled to control the American corporation, not only through his stock ownership but also through his ownership of the patents, and was enabled to collect a large part of the profits of the American corporation under the guise of royalties for the use of the patents, rather than as dividends upon its stock. This dual control of the American corporation had the advantage, from the point of view of the enemy, of permitting him to shut down the business of the American corporation in the event of his losing stock form of control and also permitted him to evade payment of income taxes by taking his profits under the guise of royalties, thus largely decreasing the apparent earnings of the American corporation.

In the case of the Bayer Co. (Inc.) and the Synthetic Patents Co. a series of license agreements was found to exist under which the American company was bound to pay upward of 75 per cent of its net earnings to the [106] enemy by way of royalties. In the case of the Heyden Chemical Works royalties consumed all of the profits of the American company, except sufficient to pay a dividend upon its preferred stock. In the case of the Bosch Magneto Co. practically the entire profits of the American company were taken from the corporation under the guise of the payment for the purchase of enemy-owned United States patents. The

extent of this control may be further illustrated by the case of the C. P. Goerz American Optical Co., which operated under approximately 80 United States patents, all of which were owned by the enemy parent company, and under which the American company held a license revocable at the will of the German company. The German company was thus placed in a position of being able to at any time revoke the license and shut down the American manufacture should the American company get out of control.

It was thus seen that in the great majority of cases the American corporations would be absolutely unsalable under the provisions of section 12 of the act as amended, unless the custodian were in a position to relieve the American company from the burden of the German-owned patent monopoly. It was obviously impossible to sell the Bayer Co. to a purchaser burdened with the obligation of paying upward of 75 per cent of its earnings, or to sell the C. P. Goerz American Optical Co. to an American purchaser who would find himself operating under a license which might be revoked at any moment. The act as it then stood seemed to offer no solution to the difficulty, since applying to the Federal Trade Commission for a license under the provisions of section 10 of the act would not relieve the American company from the burden of prewar licenses, and would in any event subject the purchaser to the payment of a royalty to the German patent owner, which royalty would be under the terms of the act reviewable after the war. It was realized that the purchaser of an [107] American business must be free from the entanglements that the enemy created while the American corporation was in enemy control, and that the purchaser must in any event be certain of the extent of his obligations before purchasing a business from the Alien Property Custodian.

The Department of Justice was therefore requested to render an opinion as to whether under the terms of the act, patents were property seizable by the Alien Property Custodian, and upon the decision of the Department of Justice adversely to this contention, steps were immediately taken to amend the act to specifically include patents, trade-marks and similar rights, within the scope of the property which could be seized by the Alien Property Custodian. On account of the press of business before Congress at the time, this amendment was not finally enacted until November 4, 1918.

Acting under the provisions of the amendment of November 4, 1918, the Custodian has proceeded to Americanize thoroughly all of the industries sold by him, by relieving the industries of the burden of licenses entered into prior to the war, and by conveying to the purchaser the patents through which the enemy companies controlled their American subsidiaries. This procedure has the effect not only of cutting off the payment of tribute to the enemy companies under licen es, but also places in the hands of the American purc asers the weapon to protect the industries from enemy invasion after the war. The purchaser is thus placed in the position of being able to use against the enemy, to prevent importation by him after the war, the very means that the enemy was using to prevent competition by the American manufacturers with his American subsidiary.

It may be stated, by way of example, that in the case of the Bayer Co. (Inc.), approximately 550 enemy-owned patents were sold with the stock of the company to the American purchaser, in the case of the Bosch Magneto Co. approximately 130 patents were sold; and in the case [108] of C. P. Goerz American Optical Co. about 80 patents will be sold when the stock of this corporation is disposed of by the Custodian.

Whenever any American manufacturing business which is likely to be operating under patents is to be sold, an investigation is conducted to determine what, if any, license agreements exist between the American company and its enemy parent, whether the patents standing in the name of the corporation are fully vested in it and what enemy-owned patents exist which are owned or controlled by the enemy parent corporation or by its principal owners and which are related to the business carried on by the American company. Prior to the sale all of the rights and benefits accruing to the enemy under such license agreements, and all of the letters patent relating to the business standing in the names of enemies, are seized by the Custodian, and at the sale of the business such rights and patents are sold to the purchaser of the stock of the American company. The American purchaser thus in effect steps into the enemy's shoes, and can protect the American company against the patent monopoly theretofore exercised by the enemy, and exercise the former rights of the enemy under the patents to exclude the enemy from competition by importation.

An important branch of the work of the Patent Division of the Alien Property Custodian's office has been the transfer of enemy patent rights to the Government of the United States, thus enabling the carrying on of certain governmental activities without interference from enemy patent owners and releasing the Government from very substantial claims for damages for past infringement of such patents. The largest single transaction of this kind was the sale to the Navy Department of the wireless station at Sayville, Long Island, formerly owned by the Atlantic Communication Co., the American subsidiary of the Gesellschaft fur Drahtlose Telegraphie, m. b. H. (commonly called the Telefunken [109] company), and of all the United States patents covering the

Telefunken system of wireless telegraphy in this country, aggregating some 97 patents and 10 applications for letters patent. There were also transferred to the Navy Department at the same time all of the other enemy-owned patents relating to radiotelegraphy found in a search made in the United States Patent Office, and the patent rights of the New York Patent Exploitation Corporation, an enemy controlled company which was found to be holding certain valuable patent rights for the benefit of the Atlantic and Telefunken companies.

In connection with the sale of the Locomotives Superheater Co. stock to the United States Railway Administration the Government is given the beneficial use of approximately 105 patents of great value relating to superheaters, valves, steam boilers, and other apparatus relating to locomotive construction and equipment.

When the Bayer company was sold, the Alien Property Custodian reserved from the sale four patents and three applications relating to a composition used for airplane "dope" and sold the property subject to an agreement on the part of the purchaser to issue to the Bureau of Aircraft Production a license and release of all claims for damages for past infringement under such letters patent and applications, at a price to be agreed on between the Alien Property Custodian and the Aircraft Production Board. The Alien Property Custodian is now cooperating with the Ordnance Department and other departments of the Government to effect the conveyance to such departments of all enemy-owned patents which may be required for their future operations, and to release these departments from claims for past infringement of enemy-owned patents. As soon as these departments furnish the Alien Property Custodian with the necessary information, the patents desired by the departments will

be immediately seized and conveyed to them, or licenses and releases will be issued, as the case may require. It is hoped that all of the departments of [110] the Government will take advantage of the possibility of extinguishing claims for infringement and securing immunity for further manufacture provided by the act.

As a further step toward the Americanization of industries in the United States, the Alien Property Custodian is now engaged in collaborating with representative bodies in the dye and chemical industries in an effort to relieve these industries in the United States from the burden of German patent monopoly. Further details of the incorporation and purposes of The Chemical Foundation, Inc., through which the plan will be worked out, are shown in another part of this report.

It is hoped that other industries which may be injuriously affected by enemy-owned patent monopolies in the same manner as the dye and chemical industries will endeavor to take similar action, and in this way assist in the Americanization of their industries and their relief from enemy-owned patent monopoly.

Other classes of property handled by the Division of Patents have also considerable importance and have produced substantial payments by way of royalties.

The trade-mark property of enemies in this country has been quite extensive, particularly in the drug industries, and the sums paid by Americans for the use of such enemy trade-marks in the United States has attained very substantial amounts. A notable case of this character is the trade-mark "Pebeco," under which royalties aggregating $157,033.50 have been collected up to the present time.

Copyrights, particularly plays and musical compositions, have also been a considerable source of revenue.

There are printed in the appendix certain schedules showing respectively patents conveyed to the Government either by direct sale or the sale of the stock of a corporation controlling such patents, and patents under which the Government has been released from claims; patents relating to businesses which have been sold to the American purchasers of such businesses; patents owned by corporations, the stock of which was enemy owned and has been seized by the Alien Property Custodian, but not yet sold; and license fees collected under prewar licenses given by owners of patents and under licenses granted by the Federal Trade Commission since the beginning of the war. The schedules do not, however, include upwards of 4,000 patents and trade-marks conveyed to The Chemical Foundation, Inc., it having been impossible to complete the listing of these patents and trade-marks up to the present.

CHAPTER XIII.

BUREAU OF SALES.

JOSEPH F. GUFFEY, *Director.*

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SELLING DIVISION.

The Selling Division, which has charge of all selling of merchandise, firms or corporations, is divided into six departments, viz:

Corporations and Firms Department.
Appraisal Department.

Publicity Department.
Mail and Files Department.
Docket Department.
Merchandise Department.

The functioning of the Selling Division will be fully described in the reports of the departments which make up this division.

SELLING DIVISION.

To this department are referred corporations and firms that have been recommended for sale by the Washington sales committee.

The duties of this department are all outlined in the organization plans of June 6, 1918, that has been made a part of this report.

Properties that have been sold by this department are as follows:

Orenstein-Arthur Koppel	$1,312,000
G. Siegle Co.	509,600
Berger & Wirth (Inc.)	41,025
H. Koppers Co.	302,250
A. W. Faber. (Bid rejected by order of the President.)	
Bosch Magneto Co.	4,150,000
F. Speidel Co.	313,000
Dresden Lace Works	125,000
Garfield Worsted Mills	1,661,476
Passaic Worsted Spinning Co.	859,908
Gera Mills	1,525,000
New Jersey Worsted Spinning Co.	2,005,000
The Bayer Co. (Inc.) and Synthetic Patents Co. (Inc.)	5,310,000
Stollwerck Bros. (Inc.)	1,503,390
International Ultramarine Works	255,000
American Lava Co.	80,000
Bronze Powder Works	217,500
Messer Manufacturing Co.	12,500
White Metal Manufacturing Co.	270,000
George Benda	135,000
G. Siegle Co. (patents)	100
Gerhard & Hey (Inc.)	100,500
New Brunswick Chemical Co.	22,100
Golde Patent Manufacturing Co.	33,750
Eisemann Magneto Co.	907,600

Heyden Chemical Works	605,000
International Textile (Inc.)	1,212,000
Becker Steel Co. of America[1]	20,000
American Pyrophor Co.[2]	85,000
Bauer Chemical Co.[2]	150,000
F. Ad. Richter & Co.[2]	155,000
	23,878,699

[1] Sold since Feb. 15.

Besides the work of preparing and selling the above firms and companies, this department has completed an immense amount of preliminary work on other firms and companies, the dates of sale of which have already been announced or will be in the near future.

Companies that are being prepared for sale by this office.

Grosser Knitting Machine Co.
American La Dentelle Co.
Botany Worsted Mills.
Schutte & Koerting Co.
General Ceramics Co.
Didier March Co.
International Leather Co.
Ernst Gideon Bek Mfg. Co.
G. Reis & Bros.
Heinr. Franck & Sons (Inc.).
Williamsburg Chemical Co.
Anglo-American Cotton Co.
W. Wolf & Sons.
American Linters Co.
Richard Mayer Co.
Lutz Shipping Co.
Norma Company of America.
Traun Rubber Co.
Rohm & Haas Co.
Dr. Jaeger's Sanitary Woolen System Co.
Boonton Rubber Manufacturing Co.
Ernst Gideon Bek (Inc.)
Goetze Gasket & Packing Co.
Schaeffer & Budenberg Mfg. Co.
Reidel & Co.
New England Waste Co.
Oversea Trading Co.
American Products Co.
American Lumber Co.
LaSalle Portland Cement Works.
Wolf Safety Lamp Co.
C. P. Goerz Optical Co.
Tropon Works.
Sterling Co.
The Blake Corporation.
Huntington Piano Co.
Werner & Pfleiderer.
Rossie Velvet Co.
Chillingsworth Mfg. Co.
Elly Coal Co.
Ceresit Waterproofing Co.
John Rath Cooperage Co.
Audiger & Meyer Silk Co.
American Junkers Co.
Chromos Chemical Co.
J. P. Devine & Co.
American Press & Plate Co.
The Flexotype Co.
German Consolidated Newspaper Co.
K. & E. Neumond (Inc.).
Vogemann Shipping Co.
Locomotive Superheater Co.
International Hide & Skin Co.
General Bakelite Co.

Name	Date of Sale	Confirmed.	Shares sold.	Purchaser
	1918.	1918.		
Orenstein - Arthur Koppel Co.	Sept. 12	Sept. 25	Entire plant (special Executive order).	W. A. Chamberlain, for Pressed Steel Car Co. (2 and 5).
G. Siegle Co.	Sept. 19	...do...	2,500 shares, $125,000 bonds.	Coffin & Co., A. B. Leach Co., W. A. Wilbur (2 and 5).
Berger & Wirth (Inc.)	...do...	...do...	300 shares with bond of $30,000.	M. J. Averbeck, 10 Maiden Lane, New York City (2 and 5).
H. Koppers Co.	Sept. 13	...do...	3,000 shares	Hamilton Stewart, A. W. Mellon, R. B. Mellon, H. W. Croft (2 and 5).
A. W. Faber (partnership).	.....	.....	Bid rejected by order of President.	.....
George Benda (partnership).	.....	.....	Sale adjourned	.....
		1919.		
Bosch Magneto Co. ..	Dec. 7	Jan. 17	250 shares and patents.	H. C. Griffiths, agent for Martin E. Kern, Allentown, Pa., Hornblower & Weeks, Chase Securities Cop. 2 and 5).
		1918.		
F. Speidel Co.	...do...	Dec. 13	Copartnership assets, patents, etc.	Leach & Garner Co., J. F. Sturdy's Sons Co., Attleboro, Mass. (2 and 5).
	1918.	1919		
Dresden Lace Works (Inc.)	Dec. 7	Jan. 17	1,250 shares common.	Richard Muller (2 and 5)..
		1918.		
Garfield Worsted Mills.	Dec. 9	Dec. 13	5,834 common, 125 preferred, 6,027.2 second preferred.	John H. Love, L. H. Hall, A. Schmidt, W. Graupner, P. G. Ruprecht (2 and 5).
		1919.		
Passaic Worsted Spinning Co.	Dec. 10	Jan. 17	4,236 common	General Worsted Co. (2 and 5).
Gera Mills	...do...	...do...	11,142 shares common, 5,000 shares preferred.	Christian Bahnsen, Ladenburg, Thalman Co., Chase Securities Corp., F. B. Keech Co., Chas. M. Howe (2 and 4).
New Jersey Worsted Spinning Co.	...do...	...do...	1,129 common, 375 preferred.	Christian Bahnsen, Otto Pressler and associates (2 and 4).
The Bayer Co. (Inc.), and Synthetic Patents Co. (Inc.).	Dec. 12	...do...	2,250 shares preferred, 5,250 shares common, 500 of Synthetic Patents Co. and other property.	Sterling Products Co., Wheeling, W. Va., Grasselli Chemical Co., Cleveland, Ohio (2 and 4).
Stollwerck Bros. (Inc.).	Dec. 21	...do...	6,000 preferred, 6,165 common.	The Touraine Co., A. M. Duane, president (2 and 4).
International Ultramarine Works.	Dec. 20	Jan. 31	1,500 shares common.	Fletcher, M. Cook, Wm. P. Talbot, Frank A. Mayer (2 and 4).
American Lava Co. ..	Dec. 23	Jan. 17	800 shares	Paul J. Kruesi (2 and 4)
Bronze Powder Works Co.	Dec. 28	...do...	12,500 shares	W. C. Cabell, James A. Hanlon, Wm. A. O'Brien, Eric Windmuller (2 and 4).
Messer Mfg. Co.	Dec. 30	Jan 31	185 shares and patents.	Adolf P. Link (2 and 4)
	1919			
White Metal Mfg. Co.	Jan. 18	...do...	Asset sale	Chas. A. Fulle (2) .....
George Bonda	...do...	...do...	.....do	Thomas Hillery (2) .....
G. Siegel Co., patents	Jan. 24	...do...	Patents	Coffin & Co. (2) .....

Name	Date of Sale	Confirmed.	Shares sold.	Purchaser	Purchase price.
rd & Hey (Inc.).	Jan. 27	.....	1,000 shares	Pyne, Kendall & Hollister (6).	$100,500
w Bruns- Chemical Co.	Feb. 5	.....	775 shares	Hugo Koblenzer (6)	22,100
Patent Manuring Co.	Feb. 6	.....	750 shares common, 250 shares preferred.	G. W. Thurnauer (6)	33,750
ann Magneto	Feb. 11	.....	1,500 shares	G. E. Matthies (3)	907,600
rden Chem- Works.	Feb. 14	.....	747 shares	Monsanto Chemical Works.	605,000
national Textile).	Feb. 15	.....	2,298 shares	Frank Miller	1,212,000
er Steel Co. of erica.	Feb. 20	.....	2,500 shares	W. R. Comfort	20,000
rican Pyrophor	Feb. 24	.....	500 shares	Alexander Harris	85,000
Chemical Co. c.).	Feb. 25	.....	1,000 shares	Pfeiffer & Merner	150,000
d. Richter & Co.	...do...	.....	1,000 shares	G. U. Tompers	155,000
				Total	23,878,699

KEY.

ose marked 1, no action taken by advisory committee pending investigation.
ose marked 2, approved as to price and purchasers by advisory committee.
ose marked 3, approved as to price by advisory committee. Investigation pending as to purchaser.
ose marked 4, action pending by Washington committee.
ose marked 5, approved by Washington committee.
ose marked 6, rejected by advisory committee as to price.

APPRAISAL DEPARTMENT.

The Appraisal Department was established in the latter part of August, 1918, primarily for the purpose of arranging for the appraisal of the fixed physical assets of the various properties to be sold. In general, these assets consist of land, buildings, manufacturing machinery and equipment, and the object of the appraisal is to check up the amount at which they are carried on the books of the company with the replacement value, for the purpose of determining the value of the property as a whole.

In order to standardize the valuation work, several engineering firms of recognized standing in this line were employed, and, after a series of conferences, a uniform method for making the appraisals was adopted. Without going into the details, it is suffi-

cient to say that the appraisal reports include a summary of valuation by classifications, showing the reproduction cost new, less depreciation, based both in 1914 and 1918 prices.

Arrangements were made with the engineering firms whereby their charges for services were somewhat less than their standard fees for similar work.

The principal functions of the Appraisal Department consist briefly of the following:

First. To assign the appraisal of those properties where a valuation is necessary to such firm as seems best fitted to undertake the work.

Second. To ascertain which properties have not had an audit made of their books, and report same to our Bureau of Audits at Washington for their assignment to such firm of accountants as they may select, with whatever special instructions the circumstances require.

Third. After the audit and appraisal have been completed, to prepare the necessary statements therefrom, with such explanations as may be necessary, for publication in the prospectus.

Fourth. To determine immediately after the completion of the audit and appraisal the approximate value of the enemy interest and decide from that, after consideration of any special features of the case, the amount of the deposit to be required to qualify to bid and the amount of the deposit to be required to inspect the property. The object of the latter deposit is twofold: First, to show the number of prospective purchasers seriously interested, and, secondly, to prevent the inconvenience resulting from a large number of curiosity seekers and others not seriously interested overrunning the plants.

Fifth. It is frequently required of the Appraisal Department to make a special analysis of the audit

and appraisal, in connection with what other information is available, in order to determine as closely as possible the value of the enemy interest, the object of this being either to show the adequacy of the high bid or to fix an upset price at the sale.

PUBLICITY DEPARTMENT.

The work of the Publicity Department of the Selling Division embraces: (*a*) Publication of advertisements in newspapers and trade journals announcing property sales; (*b*) publication of prospectus descriptive of each property to be sold by the Alien Property Custodian.

Upon receipt from the Washington office of an order of sale and terms and conditions of sale for certain property, an advertisement is prepared setting forth the enemy interest to be sold and the date of sale.

This advertisement is published in one or more New York newspapers and in newspapers in cities likely to produce the greatest number of prospective purchasers for the property to be sold.

Inquiries resulting from the publication of these advertisements indicate widespread interest in the sale of alien properties.

A general mailing list containing over 1,000 names of bankers, manufacturers, etc., has been established. Copies of all prospectuses published are mailed to this list.

Over 4,000 inquiries as to specific properties have been received.

Prospectuses published by the Publicity Department contain the following: (1) Order of sale, (2) terms and conditions of sale, (3) history of company, (4) description of its business, (5) description of its plant and realty, (6) description of patents, trademarks, and labels, (7) summary of appraisal, (8) bal-

ance sheet, (9) earnings statement for a period of years, and (10) photographs of plant.

Prospectuses have been issued on the following properties: H. Koppers Co., Berger & Wirth Co., G. Siegle Co., Dresden Lace Works (Inc.), F. Speidel Co., Bosch Magneto Co., Bronze Powder Works Co., Gera Mills, Passaic Worsted Spinning Co., New Jersey Worsted Spinning Co., Garfield Worsted Mills, the Bayer Co. (Inc.), Stollwerck Bros. (Inc.), Messer Manufacturing Co., American Lava Co., International Ultramarine Works (Ltd.), George Benda, White Metal Manufacturing Co., Schutte & Koerting Co., Eisemann Magneto Co., Gerhard & Hey (Inc.), New Brunswick Chemical Co., Golde Patent Manufacturing Co., Botany Worsted Mills, the Heyden Chemical Works, International Textile (Inc.), Didier-March Co., American Pyrophor Co., F. Ad. Richter & Co., Bauer Chemical Co., Becker Steel Company of America, A. W. Faber, Dr. Jaeger's Sanitary Woolen System Co., Goetze Gasket & Packing Co., M. Welte & Sons (Inc.), K. & E. Neumond (Inc.), American Storage Co., Raffloer, Erbsloh & Co., Pavenstedt Land Co., and Central Los Canos.

Prospectuses are being prepared on the following properties: Robert Soltau & Co., Traun Rubber Co., Audiger & Meyer Silk Co., American Metals Co., Rossie Velvet Co., General Ceramics Co., Boonton Rubber Manufacturing Co., Lutz Shipping Co., American Lumber Co., La Salle Portland Cement Co., Ernst Gideon Bek (Inc.), Ernst Gideon Bek Manufacturing Co., Sterling Piano Co., Huntington Piano Co., and the Blake Corporation.

CHAPTER XIV.

REPORT OF BUREAU OF LAW FOR THE YEAR 1918.

Lee C. Bradley, general counsel.
Mansfield Ferry, general counsel (Jan. 1, 1919).

* * * * * * * *

Other duties.—The other activities of the Bureau of Law may be classified in the following divisions:

1. *Acting as counsel for the various bureaus of the office of the Alien Property Custodian.*—Primarily the Bureau of Law acts as counsel to the Alien Property Custodian and the various bureaus of his office. This consists chiefly in rendering legal advice and assistance to the Bureau of Trusts in relation to the acquisition and management of the properties under its control.

2. *Drafting amendments to the act.*—When the original Trading with the Enemy act was passed a full realization of the German industrial menace had not dawned upon the lawmaking body. The design of Germany in planting an industrial and commercial army upon American soil was only vaguely felt, and Congress followed the custom of other war-time legislation in making provision for the conservation and safe-keeping of enemy-owned property in this country, without any attempt to employ the power of the Government as a war weapon to destroy the German hold upon American industry and commerce. By section 12 the Alien Property Custodian was given the powers of a common-law trustee to manage and operate the property within his control, and to dispose of the same only if, and when, necessary to prevent waste and protect the property. The administration of these enemy properties, and especially the management of the large industrial corporations, brought many advantages to the Government. Corporations enemy

owned which had refused during the world war to sell their products to the allies, and which upon our entrance into the war evaded the taking of contracts to produce articles necessary in prosecuting the war, were promptly put upon war work under the direction of the Alien Property Custodian. Many mills and factories which otherwise would have been idle onlookers, as far as prosecuting the war was concerned, and would have earned great profits from purely civilian work, were made to join the industrial corps of the American war machine. Minute and thoroughgoing examinations of the books of these companies disclosed in many cases failure to pay their part of the Federal taxation necessary to support the war, and under their operation by the Alien Property Custodian millions of dollars of income and excess-profits taxes, which might otherwise have been successfully hidden from the revenue-collecting authorities, have been disclosed and paid to the Government.

After a large bulk of this enemy property had come under one hand, and the Custodian was able to piece together the picture of Germany's industrial aggression during the last 40 years, there came not only a fuller realization of the hostile nature of Germany's industrial investment in America, but also of the powerful weapon against the foe which lay ready at our hands. The Congress then adopted the Americanization idea. On March 28, 1918, an amendment to section 12 of the Trading with the Enemy act was passed, giving to the Alien Property Custodian the general power of sale, providing only that enemy property should be sold at public auction to American citizens, except in cases where the public interest would best be served by private sale, to be determined by the President. Under this amendment it has been possible for the Alien Property Custodian to make a

big start in the work of divorcing German capital from American industry.

When the Custodian came to carrying out his selling program, however, he met with two very serious obstacles. He found that some of the most important of the German-owned industries in this country were operating under patents issued by the United States Government to German subjects, which patents were being used and enjoyed by the American corporations owned by the enemy, and which had never been formally assigned and were still the property of the German subjects. He found, further, that Germany had taken out thousands of American patents upon articles produced under similar patents in Germany, for the sole purpose of preventing the manufacture of the patented article in this country, and thereby forcing the importation of the German product into the American markets.

The prevailing legal opinion was that patents were not included within the enemy property which under the Trading with the Enemy act as it was originally enacted and amended on March 28, 1918, were subject to seizure and sale by the Custodian. That opinion prevailed because of the specific treatment given to patents, copyrights, trade-marks, and other similar species of property by section 10 of the act. The only power in reference to these species of property was the power conferred upon the President to license their use within certain limits that were defined, and those licenses might be either for a fixed term or for the life of the patent, as the Federal Trade Commission, to which the President delegated the powers of section 10, might decide. But any license so granted became subject to judicial review after the end of the war as to the license fees paid thereunder; and the section went further to the extent of authorizing the court, if it thought proper so to do, to cancel

the license in its entirety. Many of the corporations whose stock was entirely controlled by enemies during the period of their enemy control enjoyed the benefit, not merely of one American patent, but in some cases of as many as 80 or more American patents, which, however, were owned by enemies, who either by license or otherwise had permitted the American corporation to use these patents. But where a license was granted it was revocable at the will of the German owner, and gave no vested or enforceable right to the future use of the patents. Each license would subject the licensee to a separate suit after the war by the German owners for the purpose of determining the value of that license. Such a situation was intolerable, and limited the number of persons who would consider becoming the purchasers of the stock in such a corporation, and therefore made it impossible for the Custodian to obtain the real value of that plant. Furthermore, it was obviously impossible for any prospective American purchaser to have his patent attorney examine the title to some 80 patents and determine what the outcome of such a litigation might be with sufficient assurance for the prospective purchaser to determine the value of the business in advance of a decision in the after-the-war litigation. Consequently under the provisions of the original act the Custodian faced the possibility of being required to sell American corporations to American citizens, divested of their chief assets; and more than that, of subjecting the American purchaser to ruinous competition with the cartel-controlled industries of Germany in some lines where American markets have been closed to American producers by German patent monopoly here.

The other obstacle which the Custodian encountered was the difficulty in making title to American purchasers of stock, because the certificates represent-

ing the enemy ownership were beyond his reach, being in the strong boxes of the owners in the enemy countries.

By an amendment to section 7 (*c*) of the Trading with the Enemy act, contained in a deficiency appropriation act approved November 4, 1918, both these obstacles were removed. The Alien Property Custodian was thereby empowered to demand and take over enemy-owned patents and to require corporations to issue to him new certificates of stock in lieu of certificates which can not be produced for transfer by reason of their being in the enemy country.

This amendment in addition specifically included choses in action, and rights and claims of every character and description, as property which might be required to be conveyed to the Custodian under the act. This avoids any possible limitation on the meaning of the word "property" by construction and enables the Custodian to reach this situation. Just prior to the war, and particularly after the break of diplomatic relations, there were many transactions by which property then owned by Germans was pretended to be sold to American citizens. The larger part of it was, perhaps, first incorporated, and the stock in the resulting corporation was then pretended to be sold; but in many cases options and the right of repurchase were reserved to be exercised after the war. Where an outright sale was made without any evidence being available of an agreement for a resale the pretended buyers were cautious to make the purchase price payable in some other way after the end of the war or had fixed a date which would certainly be subsequent to the end of the war.

By this same amendment of November 4, 1918, the Alien Property Custodian was given authority to seize property so that the rights of the United States would not be defeated where for any reason the Cus-

todian was unable to serve a demand. This amendment fully authorizes in general terms the recording of any information of the Custodian made pursuant to the act, or a duly certified copy thereof, and gives to the requirements the same effect when spread upon the record in any recording office as a conveyance, assignment, or transfer. While the patents are specifically mentioned, because under the patent statute a transfer of title is not complete until the transfer has been recorded, the assignment also results in the completion of the chain of record title in cases where enemy-owned real estate or mortgages are demanded by the Custodian. Until the enactment of this amendment county clerks and other recording offices were unable to record the requirements of the form of demand of the Custodian because of the limitations of the State recording statutes.

Section 9 of the act as originally passed provides that no money or other property in the hands of the Custodian shall be liable to any order or decree of any court. This provision, however, was scarcely broad enough to cover the purposes and the necessities of the Custodian in following his policy of an Americanization of enemy-owned enterprises by their sale to American citizens. Therefore Congress, by the final amendment to the act passed on November 4, 1918, provided that the sole relief and remedy of any person having any claim to any money or other property should be that provided by the terms of the act, and that in the event of sale or other disposition of such property the relief and remedy should be limited to an action against the net proceeds received therefrom. This provision follows the precedent of some similar legislation enactment after the Civil War, which was found effective at that time.

Doubt existed as to whether the Custodian under the act as originally passed was endowed with power

to pay State and municipal taxes rightfully upon the property in the hands of the Custodian and thereafter in the possession of the United States Government. Because of the obvious desirability of paying such taxes, this power was specifically given to the Custodian by the sundry civil appropriation bill approved July 1, 1918.

The full text of the Trading with the Enemy act and the amendments thereto appears in the appendix.

DEFENDANT'S EXHIBIT No. 31.

Statement of A. Mitchell Palmer, Alien Property Custodian.

COUNT OF WAR EXPENSES AND OTHER PURPOSES
COUNT OF WAR EXPENSES AND OTHER PURPOSES

DOCKS, TERMINAL EQUIPMENT, AND TRANSPORTATION FACILITIES AT NEW YORK

SUPPLEMENTAL HEARING

Before a

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

SIXTY-FIFTH CONGRESS

Second Session

on

H. R. 9867

A Bill Making Appropriations to Supply Urgent Deficiencies in Appropriations for the Fiscal Year 1918, and for Prior Fiscal Years, on Account of War Expenses, and for Other Purposes

Printed for the use of the Committee on Appropriations

Statement of

A. MITCHELL PALMER

ALIEN PROPERTY CUSTODIAN

SUBCOMMITTEE ON DEFICIENCIES.

UNITED STATES SENATE.

Thomas S. Martin, Virginia, *Chairman.*
John F. Shafroth, Colorado.
Oscar W. Underwood, Alabama.
Thomas W. Hardwick, Georgia.
Francis E. Warren, Wyoming.
Reed Smoot, Utah.
Kennedy F. Rea, *Clerk.*

URGENT DEFICIENCY APPROPRIATION BILL, 1918, ON ACCOUNT OF WAR EXPENSES AND OTHER PURPOSES

Thursday, March 7, 1918.

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The committee met at 11 o'clock a. m.

Present: Senators Martin (chairman), Owen, Smith of Maryland, Shafroth, Tillman, Underwood, Smith of Arizona, Hardwick, Gallinger, Smoot, Dillingham, Jones of Washington, Curtis, Kenyon, and Sherman.

STATEMENT OF A. MITCHELL PALMER, ALIEN PROPERTY CUSTODIAN.

DOCKS, TERMINAL EQUIPMENT, AND TRANSPORTATION FACILITIES AT NEW YORK.

Senator Gallinger. Mr. Chairman, before Mr. Palmer makes his statement, may I ask that the provision that is on the table be read by the clerk?

(The provision referred to was read, as follows:)

The President is hereby authorized to acquire the title to the docks, piers, warehouses, wharves, and ter-

minal equipment and facilities on the Hudson River now owned by the North German Lloyd Dock Company and the Hamburg-American Terminal and Navigation Company, two corporations of the State of New Jersey, if he shall deem it necessary for the national security and defense: *Provided*, That if such property can not be procured by purchase, then the President is authorized and empowered to take over for the United States the immediate possession and title thereof. That if any such property shall be taken over as aforesaid, the United States shall make just compensation therefor, to be determined by the President, and if the amount thereof, so determined by the President is unsatisfactory to the person entitled to receive the same, such person shall be paid seventy-five per centum of the amount so determined by the President, and shall be entitled to sue the United States to recover such further sum as, added to the said seventy-five per centum, will make up such amount as will be just compensation therefor, in the manner provided for by section twenty-four, paragraph twenty, and section one hundred and forty-five of the Judicial Code. Upon the taking over of said property by the President, as aforesaid, the title to all such property so taken over shall immediately vest in the United States: *Provided further*, That section three hundred and fifty-five of the Revised Statutes of the United States shall not apply to any expenditures herein or hereafter authorized in connection with the property acquired.

The Chairman. Mr. Palmer, we shall be glad to have any views that you can give for the enlightenment of the committee in respect to this matter.

Mr. Palmer. Mr. Chairman, these two companies —the North German Lloyd Dock Co. and the Hamburg-American Terminal & Navigation Co.—are New

Jersey corporations in which the stock is all enemy owned. That is to say, it is owned by German capital.

Senator Gallinger. Is it exclusively owned by German capital?

Mr. Palmer. Exclusively German owned; the Hamburg-American Terminal & Navigation Co. being owned by the Hamburg-American Line and the North German Lloyd Dock Co. being owned by the North German Lloyd.

Senator Curtis. They have some stockholders, have they not, in this country?

Mr. Palmer. Not these two companies.

Senator Smoot. Have you a list of the stockholders?

Mr. Palmer. Yes.

Senator Smoot. Who are the principal stockholders of both of the companies?

Mr. Palmer. In the case of the North German Lloyd Dock Co. the certificates of stock are as follows:

Certificate No. 4, in the name of the North German Lloyd, of Bremen, Germany, for 990 shares, par value $100 each.

Certificate No. 7, in the name of the North German Lloyd, for 7 shares, par value $100 each.

Certificate No. 2, in the name of Joseph D. Bedle, now deceased, for one share, par value $100.

Certificate No. 9, in the name of Charles von Helmolt, for one share, par value $100.

Certificate No. 10, in the name of Frederick Nordenhalt, for one share, par value $100.

Certificates Nos. 2, 9, and 10 were issued to the respective owners to qualify them to act as directors of the corporation. They are all indorsed in blank for transfer and are beneficially owned by the North German Lloyd. So that, with the exception of the qualifying shares, the stock is all owned by the North German Lloyd.

Senator Smoot. Have you the list of stockholders of the North German Lloyd?

Mr. Palmer. No; the North German Lloyd is a German company.

Mr. Smoot. Yes; I understood that; but I wondered whether you had the list of stockholders of that company.

Mr. Palmer. I have not, Senator.

Senator Smoot. Then it is organized with 1,000 shares of $100 each, or a total of $100,000?

Mr. Palmer. Yes; all owned by the North German Lloyd, an enemy corporation.

The Hamburg-American Terminal & Navigation Co. is a corporation incorporated under the laws of New Jersey. Only 11 shares of the capital stock have been issued, all the certificates for which are held in the same way by the Hamburg-American Line. This company owns the piers, warehouses, docks, and lighters at Hoboken. The assessed value of the property is $2,018,000. On the real estate of the company there is a mortgage of $1,000,000, held by the Mutual Benefit Life Insurance Co., of Newark, N. J., on which the interest has been paid to the 19th of November, 1919, the maturity date of the mortgage.

Senator Smith of Maryland. 1919, you say? It has been paid ahead, then—in advance?

Mr. Palmer. 1919. Before we got into the war, this company paid its interest through the life of the mortgage and paid its insurance and taxes for a couple of years ahead.

The Chairman. You gave the value of the wharves of one of the companies. That was not the value of the wharves of both, was it?

Mr. Palmer. I simply gave the assessed valuation of the Hamburg-American docks.

The Chairman. Have you the assessed value of the other?

Mr. Palmer. I have not the assessed valuation of the North German Lloyd docks.

Senator Tillman. Mr. Palmer, you made one observation that I did not exactly understand. You said they had paid the taxes and insurance in advance. I can understand how they paid the insurance in advance, but I do not see how they could pay the taxes in advance.

Mr. Palmer. They have deposited the money to pay them in a special fund.

Senator Gallinger. Is there any other property that these companies own that is not covered by your statement as made to the committee now, Mr. Palmer?

Mr. Palmer. The Hamburg-American Line owns other property in this country. It owns all the stock, for instance, in the Atlas Steamship Co., which in turn is the owner of the building at 45 Broadway, which is the home office of the Hamburg-American Line.

Senator Gallinger. What I meant was, in connection with these docks.

Mr. Palmer. Oh, there are a couple of barges and lighters.

Senator Gallinger. Nothing of importance?

Mr. Palmer. Nothing of any great importance. The chief property belonging to these companies is these wharves and docks and piers at Hoboken, which, of course, are of very large value. It is very difficult to determine their value. As some men have said, they are invaluable.

Senator Curtis. May I ask you, right there, whether it is not a fact that they are now being appraised?

Mr. Palmer. By the Alien Property Custodian, yes; for the purpose of fixing a value on the stock of these companies which has been taken over by the Alien Property Custodian.

Senator Curtis. How long will it be before that appraisal will be completed?

Mr. Palmer. It ought to be completed very soon.

The President has advised you, I take it, that he thinks it is wise that the Government should take over the possession and title of these properties. It is also believed that it would be helpful to the general plans and purposes of the Alien Property Custodian with respect to enemy property, in conjunction with this power which is to be granted if this rider on the appropriation bill is passed, if there could be at the same time an amendment to the trading with the enemy act which would give to the Alien Property Custodian the general power of sale of enemy property in this country. In other words, it is desired to bring the trading with the enemy act back to the terms which were written into the law by the Senate, and to strike out the change which was subsequently made, I think in conference, restricting the power of the Alien Property Custodian to sell enemy property in this country.

Under section 12 of the trading with the enemy act the Alien Property Custodian has all the powers of a common-law trustee with respect to enemy property. He may manage and conduct the properties which come into his hands, and as the bill formerly stood he could sell or dispose of the same as he may see fit, or as he could do if he were the actual owner thereof. That is the way the bill was reported to the Senate; but somewhere in its passage there was added, at that point, these words:

If and when necessary to prevent waste and for the protection of the property.

As we construe the act that amounts to a restriction upon the power of sale and prevents the Alien Property Custodian from selling any enemy property

except where it is necessaray to prevent waste and to protect the property.

Senator Smoot. That is following the general rule of other countries; is it not?

Mr. Palmer. It is not following the English rule, Senator Smoot. Of course we can not conceive how it can protect the property to sell it; so that that clause, "for the protection of the property," practically drops out of the act, and restricts us entirely to the "prevention of waste" as a justification for a sale.

Since we have become acquainted with the enemy property in this country, since we have seen how the German Empire, through its financial operations, has put an industrial and commercial chain all the way across this country and through our insular possessions, we have become thoroughly convinced that it would be wise and proper and highly desirable at this time if the enemy ownership in some of those properties could be permanently taken away.

Senator Hardwick. Mr. Palmer, right there, does Germany do that with us now?

Mr. Palmer. Germany is doing with us exactly what we are doing with her. She is following along. She is making inquiry constantly to find out just how far we are going with German property.

Senator Hardwick. She will do, of course, whatever we do?

Mr. Palmer. She will do what we do; exactly.

Senator Hardwick. And she is now doing just what we are doing?

Mr. Palmer. She is now doing what we are doing; and she may take no step in advance of what we do because the balance is against her.

Senator Hardwick. Because they have so much more in this country than we have in Germany.

Mr. Palmer. American interests in Germany are negligible compared with German interests in this country.

In other words, we conceive that there ought to be a line drawn between the two kinds of German investments in this country. The ordinary investment of the plain German citizen ought to be taken over by the alien property custodian and held as against the time when the distribution of it will be made, probably in kind, to somebody under the act of Congress at the end of the war; but the investment in this country, which is so close to the German Empire's control that it amounts to a part of the German industrial and commercial hold upon America and American insular possessions, ought to be treated a little differently.

Senator Hardwick. What is the difference between those two classes? That is the point.

Mr. Palmer. The difference is well illustrated in the Hamburg-American Line, for instance.

Senator Hardwick. That is partly Government owned is it not?

Mr. Palmer. The Hamburg-American Line is a German Empire subsidized concern. It is not a case of private subjects of Germany owning property over here; it is a part of the German Empire's commercial grasp upon this continent. There are other concerns of a similar character in continental United States and in our insular possessions.

Senator Hardwick. Besides the steamship lines?

Mr. Palmer. Besides the steamship lines?

Senator Hardwick. What are they?

Mr. Palmer. Great industrial concerns.

Senator Hardwick. What kind of industrial concerns?

Mr. Palmer. If we are not going to get the power

to sell them, it would embarrass us to make them a matter of public record.

Senator Hardwick. I want to see how much basis there is for this. Are they quasi-Government owned?

Mr. Palmer. They are large industrial concerns in which the great financial powers of Germany are large owners.

Senator Hardwick. Do you mean the German Government?

Mr. Palmer. Yes.

Senator Hardwick. That is exactly the point.

Mr. Palmer. Why, there is a city in this country which is a little Germany in that respect, a great industrial town where seven or eight great mills are entirely German owned, and from some of which the American flag has never flown until the Alien Property Custodian took over the enemy's stock and put his own directors into those corporations.

It is a part of the German trust in that industry; there is no question about that, and it is a very interesting question, at least, whether as an effective weapon in the war we ought not to consider Americanizing that sort of a concern and putting the proceeds in cash in the Treasury of the United States to await distribution at the end of the war.

Otherwise I find myself in this position: I am to-day operating factories and mills and industries all over the United States. Through my directors representing the enemy stock I am making chocolate in Connecticut, rails in Pennsylvaia, woolens and worsteds in New Jersey, dyes and chemicals in New York, lumber in Florida, raising sugar in Porto Rico and Hawaii, raising tobacco in many States in the South, making beer in Chicago, lead pencils in New Jersey, and conducting all these various kinds of business and many others, most of which are making

enormous profits by reason of the very conditions for which the enemy is responsible, namely, the war conditions. If I must simply sit here, holding the stock of these companies making these enormous profits out of the war, with the possibility of returning both principal and profits to the German owners at the end of the war, I am doing a tremendous favor to the German Empire, our enemy.

Senator Gallinger. What would be the alternative, Mr. Palmer?

Mr. Palmer. The alternative would be to account for these properties as of their value at the time I took them over when the war broke out, sell them to American capital, let Americans run them, separate them permanently and entirely from German control, put the money in the Treasury, invest it in Government bonds to fight the war with, and when the war is over, if any accounting has to be made, say to those who claim an accounting: "Here is the value of your property when the war broke out in the Treasury of the United States in cash."

Senator Dillingham. Has the German Government any interest in the various industries which you have mentioned?

Mr. Palmer. We have not gotten to the bottom of that, Senator. We run into things that make us think that the German Government has.

The Chairman. About the ship lines you have some evidence?

Mr. Palmer. Oh, yes.

The Chairman. The German Government certainly has an interest in those two German lines.

Mr. Palmer. Yes. The Hamburg-American Line is a subsidized German concern.

Senator Gallinger. I was interested in an observation you made a moment ago, Mr. Palmer—that those ship lines were subsidized by the German Gov-

ernment. That used to be denied when I tried to get a subsidy for American ships.

Mr. Palmer. That is our understanding of it.

Senator Gallinger. Yes; and you are correct, undoubtedly.

Senator Jones of Washington. Mr. Palmer, did you find that the German Government has an actual part ownership in those companies?

Mr. Palmer. I have not got evidence which would go in court, Senator.

Senator Jones of Washington. If it has, it occurred to me that we should confiscate it and not pay for it at all.

Senator Smoot. Mr. Palmer, I want to ask you a question along that line. Did the Hamburg-American Terminal & Navigation Co., which owns the docks in New York, own the boats that the company ran between New York and Hamburg?

Mr. Palmer. They were owned by the Hamburg-American Line.

Senator Smoot. They were owned by the Hamburg-American Line?

Mr. Palmer. Yes; and the Hamburg-American Line owns this New Jersey corporation, and the Hamburg-American Line owned the ships.

Senator Smoot. Yes; that is as I understood it. Now, I think I have a list of the owners of those boats. I did have it once, when we were making a fight against the ship-purchase bill. The German Government did not own those boats. They were owned by individual citizens of Germany; and I think I have in my office a list, furnished me from a source in New York that I felt was absolutely correct, of the owners of the stock of the company that held those boats. It seems to me if we have the list of stockholders of the corporation that owned the boats, we could practically have that list apply to the company that owns the docks.

Mr. Palmer. I think it likely; but it does not particularly interest me as to who the stockholders of a German corporation are. I treat the German corporation as an enemy corporation. I do not care who the stockholders are.

Senator Smoot. But what I wanted to get at was the point you made there, that the German Government owned and controlled this company that controls the docks here in New York.

Mr. Palmer. I do not think I said "owned and controlled" by the German Government.

Senator Smoot. I understood you to say so.

Senator Owen. Mr. Chairman, I should like to say that I have heard that a large part of this stock is held in trust for the Kaiser himself by some of the individuals who appear as stockholders, but who in reality have a trust agreement with Wilhelm II.

Senator Smoot. All I know about it is that when the Republicans were fighting the bill——

Senator Gallinger. And some Democrats.

Senator Smoot. And some Democrats—when they were fighting the bill creating the Shipping Board, with the view of purchasing these German boats, I did have the list of every stockholder whose name appeared upon the company's books. I do not know whom they may represent, but I did have that list, and on the list are found the names of some very prominent bankers of Hamburg and Germany.

Senator Owen. I understood that Herr Ballin was representing in this company the Kaiser's interests in these boats.

Mr. Palmer. There is no earthly question about an intimate relation of some sort between the German Government and the Hamburg-American Line.

Senator Smoot. I do not think there is any doubt but that the German Government subsidized these boats. I have always thought so.

Mr. Palmer. And neither is there any doubt about the relations between the German Government and a large number of other great industrial enterprises in this country which have come within the control of the Alien Property Custodian.

Senator Smith of Maryland. The concerns of which you speak, which you are operating, are getting the benefit of the large profits brought about by this war, for which Germany is responsible?

Mr. Palmer. Yes. Under the kindly supervision of the Government the Alien Property Custodian is operating them profitably.

Senator Smith of Maryland. For them?

Mr. Palmer. Yes; so far as we know now.

Senator Hardwick. Mr. Palmer, let me ask you a question or two about this precise proposition. We are in exclusive possession and control of that property now, under one of the war acts, are we not?

Mr. Palmer. The Alien Property Custodian has the ownership.

Senator Hardwick. You have the stock?

Mr. Palmer. Yes. That is the ownership.

Senator Hardwick. But, I mean, the physical properties?

Mr. Palmer. Yes; and the Government is in possession of the docks and wharves, actually using them for the embarkation of troops now.

Senator Hardwick. Under the authority of Congress authorizing that to be done for the period of the war?

Mr. Palmer. I presume so.

Senator Hardwick. Yes; I think that is true. So that you, as Alien Property Custodian, have the stock of these companies, because it is enemy owned?

Mr. Palmer. Yes.

Senator Hardwick. And the Government itself

has exclusive and complete control and possession of the physical property and can hold it during the war?

Mr. Palmer. But the purpose of these two amendments is that there shall be something more than simply taking it over during the war.

Senator Tillman. How would you get the title, Mr. Palmer?

Mr. Palmer. By an amendment to the trading-with-the-enemy act empowering the Alien Property Custodian to sell the stock of enemy corporations.

Senator Tillman. You would put it up at public sale and buy it in for the Government?

Mr. Palmer. I could sell the stock to American capital and sell the assets.

Senator Owen. And invest the proceeds in Government bonds.

Senator Hardwick. You do not mean the docks, do you?

Mr. Palmer. The same thing would be true about the docks.

Senator Hardwick. But the Government, as I understand this amendment, wants to buy the docks.

Mr. Palmer. This amendment proposes that the President may seek to purchase, and if he can not purchase he may take, these docks, wharves, and piers. They are the physical assets of these companies.

Senator Hardwick. Yes; but he already has them.

Mr. Palmer. He has them in his possession, for the purposes of the war, during the war.

Senator Hardwick. Exactly.

Mr. Palmer. This amendment proposes that he shall take title to them.

Senator Tillman. After the war.

Mr. Palmer. So that they will belong to the Government and be separated from the German Government forever.

Senator Gallinger. May I ask you, right there—

because it is a matter of concern to some of us—what is the urgent and imperative necessity of the Government holding those docks and wharves after the termination of the war?

Mr. Palmer. Of course, I can not speak for anybody except myself. The feeling is, I think, that the time has come when the ownership of some of these great German properties should be permanently separated from German capital, and that the enemy might as well know now that the connection which she has been able to maintain with American industry and commerce is broken, not simply during the war, but broken never to be resumed.

Senator Hardwick. That is a different proposition.

Senator Gallinger. Yes. There is one other practical question that occurs to me, because I am ignorant of the situation:

If these properties are purchased by the Government and an appropriation is made by Congress, and the money passes into the Treasury of the United States, where does it go for the time being—into your hands or into the hands of the German Government to be used to fight us?

Mr. Palmer. I take it that for the time being it would go to the Alien Property Custodian. It would be put into the Treasury of the United States and used to fight Germany.

Senator Owens. You could invest it in United States Government bonds to help fight this war with, could you not?

Mr. Palmer. I not only could but would. That is what it would be invested in.

Senator Kenyon. It would not go to the stockholders or to the German Government?

Mr. Palmer. Oh, clearly not.

Senator Gallinger. That is the point I wanted to make clear.

Mr. Palmer. Let me tell you what happened here. Perhaps many of you know about it.

The Hamburg-American Line had two ships in neutral ports, one in Mexico and one in a Central American port, which the Shipping Board desired to buy and agreed to buy for $1,900,000. The Hamburg-American Line imposed the condition upon that sale that the $1,900,000 should not be taken by the Alien Property Custodian. That seemed to be fair enough, because we could not expect to get the ships and keep the money both; so I agreed that the $1,900,000 would be deposited in a bank in New York, to be used by the Hamburg-American Line for the payment of pensioners and things of that sort in this country—they have a large number of employees here who have to be maintained—such payments to be made under the supervision of the Alien Property Custodian; but then the Hamburg-American Line imposed further conditions upon the sale. They said that as a further condition they would insist that a fund of about $600,000, which was acquired from the sale of another ship which was under the control of the Alien Property Custodian, should also be at their disposal for similar purposes; and they would impose the further condition that the Alien Property Custodian should not take over the control of these New Jersey corporations which owned the docks, wharves, and piers, and that he should not take over the control of the corporation which owns their home office, 45 Broadway, in New York. At that price we balked.

Their representatives in this country frankly said that their idea was that when the war was over they should have a capital fund of $2,500,000, their terminal facilities at Hoboken, and their home office in New York to immediately start to do business; and it looked like too big a price to pay for those two ships.

That is an indication, and I think a fair indication,

of the hope and the purpose of enemy capital to try to keep it over here in such condition that not a day shall elapse when the war is over before they again put their grip upon the commerce and industry of America.

Senator Hardwick. No matter what we do during the war, whenever we make a treaty of peace with Germany, if we ever do make one, those things probably will be regulated by the terms of the peace treaty; will they not, Mr. Palmer?

Mr. Palmer. Yes; but if, in the meantime, they have been converted into cash, and the cash is in the Treasury, the cash is the only thing that can be considered in a peace treaty.

Senator Hardwick. Well, I do not know.

Mr. Palmer. If the title and possession of these properties has been put in American citizens, that is the only thing that can be done.

Senator Hardwick. There have been many instances in international diplomacy where they reversed action taken during the war.

Senator Smith of Maryland. Your idea is that, as far as possible, before the termination of the war the title to any property that they own in this country should be taken over by American citizens?

Mr. Palmer. Certainly.

Senator Gallinger. My attention was attracted by your suggestion a moment ago, in reference to those boats, that we can not expect to hold the property and the money, too. Is not that exactly the case in reference to these docks? I want to have a clear understanding about it.

Mr. Palmer. The difference is that those boats were in neutral ports, where we could not take them anyhow. We could not get them. The docks are on American soil. We could not get the boats without their consent. We have the docks.

Senator Gallinger. That is a question of power, then.

Senator Dillingham. Mr. Palmer, may I ask you one question to clear up a matter in my own mind? If the President is authorized to make this purchase, I understand it would be made through you as custodian. Am I right on that point?

Mr. Palmer. I have not discussed the details. If he buys the stock of these companies, the payment should be made to the Alien Property Custodian, I take it. If he buys the assets of the corporation, the purchase price would be paid to the Alien Property Custodian. But here is the trouble, Senator. This rider gives the President the power to purchase, but I have not the power to sell.

Senator Dillingham. That is what I was coming to. In order to have the power to sell, you would require an amendment to the act under which you are operating?

Mr. Palmer. Yes.

Senator Jones of Washington. That has not been framed?

Mr. Palmer. Yes; it has been framed, and I have it with me. The way this matter comes up is this:

We have felt for the three or four months we have been operating that we had to have some amendments to this law, and we have prepared with great care a number of amendments, but they all revolve around this extension of the power of sale. I have felt that the time has now arrived when, without further delay, if possible, this power should be given to us, and it can be done in conjunction with this proposition by a simple amendment to section 12 which cuts out the limitation which I have described, "if and when necessary to prevent waste."

Senator Smoot. Is it to be the policy of our Government hereafter to take action to impress upon the

German Government, and, perhaps, upon our allies as well, that after the war ceases Germany shall not have full and free intercourse in a business way with this country?

Mr. Palmer. Senator, I am sure you do not expect me to define the policy of this Government—now or after the war.

Senator Smoot. You virtually said so, and I thought perhaps it would be better to get it straight.

Mr. Palmer. No; I can not be quoted as stating the policy of the Government, either now or in the future.

Senator Hardwick. You are advocating that policy.

Mr. Palmer. That might be another thing.

Senator Underwood. Let me ask you a question there: The property of which you have control belongs to the richer classes, or what you might call the junker class, of Germany?

Mr. Palmer: Yes.

Senator Underwood. Who are the ones that are behind the Kaiser in carrying on this war?

Mr. Palmer. These larger properties do belong to that class of people.

Senator Underwood. And the effect of adopting your amendment would be to give you power to strike a blow at that class; at least, it would jeopardize their property to a certain extent, subject to what a treaty of peace might ultimately do, and aid the Government in its conduct of the war. Is not that the result of it?

Mr. Palmer. I think so; undoubtedly.

Senator Smoot. Mr. Palmer, would not this be the result: If we take these docks at this time, and the valuation is placed upon them at a time when the amount would be perhaps 50 per cent. or 100 per cent. more than they would be worth after the close of the war, are we not helping the owners of the docks rather than hurting them by taking their property?

Mr. Palmer. The value of these docks will never decrease, Senator.

Senator Smoot. Well, I do not know. After the war, everything is going to decrease in value.

Mr. Palmer. Not terminal facilities on the Hudson River at New York.

Senator Owens. If it were offered for sale on the open market, the patriotism of American citizens would preclude their putting the price up to 50 per cent. more than the real value.

Senator Smoot. It is not the patriotism of American citizens that would be appealed to; it is a question of what the actual value of the docks would be at the time.

Senator Owen. The actual value is what they will bring in the market.

Senator Smoot. They will bring more today than they will after the war.

Senator Owen. They will not, in my judgment.

Senator Smith of Arizona. They are not on trading ground with us today.

Senator Underwood. What you want to do is to go further than this act, is it not? Your proposal is to give you power to handle all this situation. Will you give the committee the benefit of your amendment?

Mr. Palmer. This proposition gives the President the right to take or to purchase these particular docks and terminal facilities.

Senator Hardwick. For the Government?

Mr. Palmer. Yes.

Senator Hardwick. Which, of course, is a different proposition from your general proposition to permanently extinguish German title.

Mr. Palmer. No; it is only a part of it.

Senator Hardwick. No; because if your general proposition were applied to this one, then anybody in the country could buy these docks, just so they were

American citizens, of course; and the question of whether the Government shall buy them or private individuals shall buy them is still involved.

Mr. Palmer. Certainly; but it ought not to be necessary to say that the Alien Property Custodian, in exercising the right to sell property which is necessary for war purposes, would of course prefer the Government in the purchase.

Senator Hardwick. That is not a question for the Alien Property Custodian at all; that is a question for Congress to decide.

Mr. Palmer. If the Congress gives to the President the right to buy the property, he applies to the Alien Property Custodian and desires to buy property necessary for war purposes, the custodian would accommodate the desire if possible.

Senator Hardwick. But the Government has the exclusive control and use of this property anyhow for war purposes, so that is not involved. I am interested in knowing what are the real reasons why this property should be acquired at all by the Government for use after the war, even if you do want to permanently extinguish German title of this character in the country after the war, and can do it.

Mr. Palmer. All I can say is that the desire is that the title, as well as possession, shall be permanently taken away from the German owners.

Senator Hardwick. There is no war purpose in that.

Mr. Palmer. I am not sure about that, Senator.

Senator Hardwick. I am absolutely sure.

Mr. Palmer. It seems to me, as Senator Underwood says, that you can not strike a heavier blow at the enemy today than to make him understand that he has lost his connection with the industry and commerce of the American Continent.

Senator Gallinger. Oh, but it will be restored after the war.

Senator Hardwick. Just as surely as we sign a peace treaty it will be put back.

Senator Gallinger. We will never have a peace treaty if that proposition is put up to a self-respecting government.

Mr. Palmer. That argument could apply to every blow at the enemy. We are at war, and we want to wage war as effectively as possible.

Senator Smith of Maryland. If you decrease the facilities of the Germans for doing business in this country after the war, you certainly decrease the opportunities and the chances they will get to do business in competition with other countries.

Senator Gallinger. We will want to do business with Germany.

Senator Smith of Maryland. Yes; but we do not want to have them favored as they now are. They are favored now with properties here that enable them to do business that possibly it would be well to eliminate.

Senator Smoot. I understand that no moneys for the rental of these docks are turned over to Germany now.

Senator Hardwick. Or to German citizens.

Senator Smoot. Or to German citizens?

Mr. Palmer. No; we did not agree to that. They asked us to agree to that, and we declined to do it.

Senator Smoot. Certainly; and you did well and right in not agreeing to it. So by running these docks you are not helping any German citizen during the war. His settlement will come after the war, and then you will have to pay him.

Senator Smith of Arizona. In the meantime, we stand as the beneficial trustee of a people with whom we are at war, in protection of their property, and hand it to them after the war is over.

Senator Smoot. We are doing that without any further legislation.

Senator Smith of Arizona. We hand it over to them after the war is over without any depletion of value or loss to them.

Senator Tillman. In other words, Americans suffer and pay taxes, while those whelps over there get all the benefits.

Mr. Palmer. The question is whether we will account for the value as of the time when we take it, or whether we will account for it as tremendously increased in value by reason of the profits which have been made out of the very conditions for which they are responsible.

Senator Smoot. Mr. Palmer, that is not involved in the amendment that we have before us today.

Mr. Palmer. That is involved in the general proposition.

Senator Hardwick. That may be.

Senator Jones of Washington. Will you not read that other amendment?

Senator Owen. Mr. Chairman, I want to make this suggestion: The Russian treaty which has just appeared in print shows that Germany has declared the principle that no indemnity or restoration is expected on the part of those from whom Germany has taken properties during the war with Russia. If that is a good thing for Germany it is a good thing for us. It will make a trading basis, at all events, when the war ends.

Senator Smoot. I hope the United States will not be in the position that Russia is in today, and have to accept any such humiliating terms as those.

Senator Owen. If Germany declares it to be a good doctrine for Russia, I think we might hold it up at the council table, when we come to treat with Germany, and say: "You have declared this doctrine in

the case of Russia, and now you ask that it shall not apply to America."

Senator Tillman. "Take your own medicine."

Senator Owen. "Take your own medicine."

The Chairman. There are some treaties between this country and Germany. I do not know how far they will embarrass us; but, speaking for myself, except so far as we are controlled by treaties, they will not get back a nickel.

Senator Hardwick. We have no treaty with Germany now.

Senator Owen. We have no treaty with Germany. They have abrogated it by their own acts.

The Chairman. I think we have treaties that provide what shall be done in the event of war.

Senator Owen. But they have abrogated them, and treated them as "scraps of paper."

The Chairman. But we can not afford to do that.

Senator Owen. No; but I mean we can compel them to adopt their own doctrine.

The Chairman. If we are bound by treaty to do certain things, I expect the Government to do them, and only to that extent would I be embarrassed by the treaty. I would not return a nickel except as we are bound to do it by treaty; but I rather think we will be embarrassed by some treaties.

Senator Underwood. Mr. Chairman, I should like to have Mr. Palmer get a chance to present his amendment. He has not presented it yet.

Mr. Palmer. The suggested amendment rewrites section 12 of the trading-with-the-enemy act. Practically the only change, however, is to omit the following words:

If and when necessary to prevent waste and protect such property, and to the end that the interests of the United States in such property and rights, or of such person as may ultimately become entitled there-

to, or to the proceeds thereof, may be preserved and safeguarded.

Senator Jones of Washington. As I understand, if we should adopt that, it would leave that section substantially as the Senate passed it.

Mr. Palmer. Substantially as the Senate passed it; so that the power of sale of the Alien Property Custodian would read:

The Alien Property Custodian shall be vested with all of the powers of a common-law trustee in respect of all property, other than money, which has been or shall be, or which has been or shall be required to be, conveyed, transferred, delivered, or paid over to him—

I put in "has been or shall be" because of the fact that we had been taking over property—

In pursuance of the provisions of this act and in addition thereto, acting under the supervision and direction of the President, and under such rules and regulations as the President shall prescribe, shall have power to manage such property and do any act or things in respect thereof or make any disposition thereof or of any part thereof, by sale or otherwise, and exercise any rights or powers which may be or become appurtenant thereto or to the ownership thereof in like manner as though he were the absolute owner thereof.

Senator Smoot. If we pass that, why need we insert this at all?

The Chairman. Because this does not give the President the right to buy it. It gives the Alien Property Custodian the right to sell it, but to buy it for the Government he needs some legislation.

Mr. Palmer. That is it. One of these amendments gives the President the right to buy. The other gives the Alien Property Custodian the right to sell.

Senator Smoot. Not only this property, but any other property.

Mr. Palmer. Of course, what that amendment means is just this: As the law stands to-day, I am simply a conservator.

Senator Hardwick. A stakeholder.

Mr. Palmer. I can not sell anything. I list this property; I sit up here and take it in by the millions and the hundreds of millions, and I see it grow day in and day out with enormous profits, which I have got to account for when the war is over.

The Chairman. You are doing business for the German people instead of for your own country?

Mr. Palmer. Absolutely.

Senator Tillman. You are engaged in making money for those whelps over there.

Senator Owen. He is.

Senator Jones of Washington. My recollection is—I am on the Commerce Committee, and was when that bill was considered—that we considered that phase of the matter very carefully; and we eliminated that limiting clause deliberately; and I can not understand why the conference committee put it back, or how it got back here in the bill.

Mr. Palmer. Well, it got there.

Senator Jones of Washington. Yes; I see it did.

Mr. Palmer. There is no question about that; and it has resulted, just as I say, in making us simply the safe-keepers of this property. That will continue to apply to everything which we ought to be a safe-deposit company for. Stocks and bonds, securities, and debts, and that sort of thing, will continue to be kept as they are now; but it is these great industrial and transportation enterprises, producing sugars and woolens and tobaccos and steel and valves and ship products, and all that sort of thing, that I want to provide for.

Senator Kenyon. What do you want to do with these profits? Are you just holding these profits?

Mr. Palmer. The dividends declared by these companies in cash go to the Treasury, and are invested in liberty bonds.

Senator Smoot. Just as Germany holds ours.

Senator Gallinger. Mr. Palmer, I presume you have not accurate knowledge on this point; but you suggested that our interests in Germany were negligible.

Mr. Palmer. Comparatively.

Senator Gallinger. Can you give us an approximate idea as to that matter? They are very much smaller than the German interests in this country?

Mr. Palmer. Very much smaller.

Senator Gallinger. Of course, they will retaliate, as far as they can, for any legislation that we adopt along the lines that you advocate?

Mr. Palmer. Yes. It is difficult for us to learn exactly what they have done. Some of the reports that come to us indicate that they have gone further than we have and some indicate that they are keeping abreast of us. I think the latter is the truth. Outside of the Standard Oil Co., the United Shoe Machinery Co., and two or three big concerns of that kind, we have almost nothing in Germany.

Senator Kenyon. Does that statement apply to what they are doing in Roumania and parts of Russia?

Mr. Palmer. They have gone further than that, according to the information that leaks to us, about Roumanian properties.

Senator Underwood. Have you got an amendment prepared to go with the amendment taking over these docks that will cover the whole situation?

Mr. Palmer. Yes.

Senator Underwood. I wish you would give the committee the benefit of it.

Senator Hardwick. He read it.

Senator Underwood. Did you read it as an amendment?

Mr. Palmer. I did not read it at all, because, as I say, it constitutes a rewriting of section 12. I thought that was the way to do it. That which is underscored is to be inserted, and which is stricken through is to be omitted; that is all.

The Chairman. Mr. Palmer, as I understood you, your suggestion was that the amendment which the President had sent here should be adopted, and the one you have prepared in addition?

Mr. Palmer. Both.

The Chairman. That they both should be adopted?

Mr. Palmer. Yes.

The Chairman. To make a complete treatment of this whole subject?

Mr. Palmer. That is it exactly, Senator.

Senator Owen. I think that is right, too.

Senator Shafroth. No dividends whatever are paid on the stocks that you hold, I presume, are they?

Mr. Palmer. Yes, indeed; dividends are paid.

Senator Shafroth. They do not go into German hands, however?

Mr. Palmer. Oh, no. The dividends are paid to the stockholder, and the stockholder now is the Alien Property Custodian.

Senator Smith of Maryland. The American Government is holding the money for them until after the war.

Mr. Palmer. The Alien Property Custodian's bank is the Treasury. The dividends that I get I put in the Treasury.

The Chairman. Your object is to be relieved from continuing to do business for the benefit of the Germans?

Mr. Palmer. That is very largely it, as far as

these large enterprises are concerned that are closely affiliated with the German Government. Where a German subject has an investment over here of an individual, private character, we ought not to disturb it. We can account for that when the war is over; but these great industries, these great concerns financed by the Deutsche Bank, supported by the junker class, as Senator Underwood says, in Germany, are the kind we ought to Americanize. That is what we ought to do with them.

Senator Shafroth. What do you do in the case of an American minority stockholder where the German stockholders are in the majority? Do you pay the American his dividends or not?

Mr. Palmer. Oh, certainly.

Senator Shafroth. But you hold the other part in the custodian's fund?

Mr. Palmer. Exactly. We simply take the stock of the enemy, so that the corporation pays the dividends to the American stockholders, and pays the enemy stockholders' dividends to us.

Senator Dillingham. What do you do with the companies that have been very largely German owned in the past, but which have eventually gone very largely into the hands of American capitalists, so that they own the majority of the stock?

Mr. Palmer. If it is a good-faith transaction we take over the enemy interests, which in that case would be a minority only, and ask for representation on the company's board of directors.

Senator Dillingham. Under this amendment, would you be the judge as to whether or not that was done in good faith?

Mr. Palmer. I think we are now, Senator. We are investigating some of those transactions. They were very numerous early in 1917.

Senator Dillingham. I understand there were a large number of them.

Senator Jones of Washington. Your amendment does not change that phase of the matter?

Mr. Palmer. No.

Senator Underwood. Your amendment merely goes to the proposition of power to sell what you have. The power to take is not affected by this amendment at all?

Mr. Palmer. Not in the slightest. It is just a question as to how the Alien Property Custodian is going to operate this office and manage this property—whether he is simply going to take care of it in kind, and protect it as a trustee for the owner, or whether he is going to be permitted to convert it into cash and keep the money for the time being.

Senator Owen. And invest that money in Government bonds to help fight this war.

Mr. Palmer. Certainly.

There are two copies of these proposed amendments. As I say, while this one looks formidable, because it is large, there are just small changes.

Senator Hardwick. Mr. Palmer, of course the argument you have made as to extinguishing German title in this country as a permanent policy does not in any way touch the question as to whether the Government itself ought to own and operate these wharves after the war?

Mr. Palmer. No, sir.

Senator Hardwick. You have nothing to submit on that question?

Mr. Palmer. I have nothing to say about that. That is outside of my jurisdiction.

The Chairman. Mr. Palmer, you have given us very valuable information. We are very much obliged to you.

(The two amendments referred to by Mr. Palmer are as follows:)

FIRST AMENDMENT.

The President is hereby authorized to acquire the title to the docks, piers, warehouses, wharves, and terminal equipment and facilities on the Hudson River now owned by the North German Lloyd Dock Company and the Hamburg-American Terminal and Navigation Company, two corporations of the State of New Jersey, if he shall deem it necessary for the national security and defense: *Provided,* That if such property can not be procured by purchase, then the President is authorized and empowered to take over for the United States the immediate possession and title thereof. That if any such property shall be taken over as aforesaid, the United States shall make just compensation therefor, to be determined by the President, and if the amount thereof so determined by the President is unsatisfactory to the person entitled to receive the same, such person shall be paid seventy-five per centum of the amount so determined by the President and shall be entitled to sue the United States to recover such further sum as, added to the said seventy-five per centum, will make up such amount as will be just compensation therefor, in the manner provided for by section twenty-four, paragraph twenty, and section one hundred and forty-five of the Judicial Code. Upon the taking over of said property by the President as aforesaid the title to all such property so taken over shall immediately vest in the United States: *Provided further,* That section three hundred and fifty-five of the Revised Statutes of the United States shall not apply to any expenditures herein or hereafter authorized in connection with the property acquired.

SECOND AMENDMENT.

That section twelve of the "trading with the enemy act" be, and hereby is, amended so as to read as follows:

SEC. 12. That all moneys (including checks and drafts payable on demand) paid to or received by the Alien Property Custodian pursuant to this act shall be deposited forthwith in the Treasury of the United States, and may be invested and reinvested by the Secretary of the Treasury in United States bonds or United States certificates of indebtedness, under such rules and regulations as the President shall prescribe for such deposit, investment, and sale of securities; and as soon after the end of the war as the President shall deem practicable such securities shall be sold and the proceeds deposited in the Treasury.

All other property of an enemy or ally of enemy conveyed, transferred, assigned, delivered, or paid to the Alien Property Custodian hereunder shall be safely held and administered by him except as hereinafter provided; and the President is authorized to designate as a depositary or depositaries of property of an enemy or ally of enemy any bank, or banks, or trust company, or trust companies, or other suitable depositary or depositaries located and doing business in the United States. The Alien Property Custodian may deposit with such designated depositary or depositaries, or with the Secretary of the Treasury, any stocks, bonds, notes, time drafts, time bills of exchange, or other securities or property (except money or checks or drafts payable on demand, which are required to be deposited with the Secretary of the Treasury), and such depositary or depositaries shall be authorized and empowered to collect any dividends or interest or income that may become due and any

maturing obligations held for the account of such custodian. Any moneys collected on said account shall be paid and deposited forthwith by said depositary or by the Alien Property Custodian into the Treasury of the United States as hereinbefore provided.

The President shall require all such designated depositaries to execute and file bonds sufficient in his judgment to protect property on deposit, such bonds to be conditioned as he may direct.

The alien-property custodian shall be vested with all of the powers of a common-law trustee in respect of all property, other than money, which has been or shall be, or which has been or shall be required to be conveyed, transferred, delivered, or paid over to him in pursuance of the provisions of this act and, in addition thereto, acting under the supervision and direction of the President, and under such rules and regulations as the President shall prescribe, shall have power to manage such property and do any act or things in respect thereof or make any disposition thereof or of any part thereof, by sale, or otherwise, and exercise any rights or powers which may be or become appurtenant thereto or to the ownership thereof in like manner as though he were the absolute owner thereof. It shall be the duty of every corporation incorporated within the United States and every unincorporated association, or company, or trustee, or trustees within the United States issuing shares or certificates representing beneficial interests to transfer such shares or certificates upon its, his, or their books into the name of the alien-property custodian upon demand, accompanied by the presentation of the certificates which represent such shares or beneficial interests. The alien-property custodian shall forthwith deposit in the Treasury of the United States,

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as hereinbefore provided, the proceeds of any such property or right so sold by him.

Any money or property required or authorized by the provisions of this act to be paid, conveyed, transferred, assigned, or delivered to the alien property custodian shall, if said custodian shall so direct by written order, be paid, conveyed, transferred, assigned, or delivered to the Treasurer of the United States with the same effect as if to the alien-property custodian.

After the end of the war any claim of any enemy or of an ally of enemy to any money or other property received and held by the alien-property custodian or deposited in the United States Treasury, shall be settled as Congress shall direct: *Provided, however,* That on order of the President as set forth in section nine hereof, or of the court, as set forth in sections nine and ten hereof, the alien-property custodian or the Treasurer of the United States, as the case may be, shall forthwith convey, transfer, assign, and pay to the person to whom the President shall so order, or in whose behalf the court shall enter final judgment or decree, any property of an enemy or ally of enemy held by said custodian or by said Treasurer, so far as may be necessary to comply with said order of the President or said final judgment or decree of the court: *And provided further,* That the Treasurer of the United States, on order of the alien-property custodian shall, as provided in section ten hereof, repay to the licensee any funds deposited by said licensee.

(The committee thereupon went into executive session, after which it adjourned.)

DEFENDANT'S EXHIBIT No. 32.

Résumé of Extracts From Proceedings Before Congress, Showing History of Amendment of March, 1918.

H. R. 9867—URGENT DEFICIENCY APPROPRIATION BILL.

Cong. Record
65th Cong. 2nd Session
Bound Vol. P. 3328
Unbound . . . P. 3598
March 11th, 1918.

On March 11th, 1918 on the floor of the Senate to the then pending sales amendment, the following amendment was offered by Senator Freylinghusen and adopted by the Senate:

> "And provided further, That any property, other than that sold to the United States, sold under this act shall be sold at public auction to citizens of the United States only and to the highest bidder."

Bound Vol. P. 3942
Unbound 4229
March 23, 1918.

After disagreement between House and Senate, referred to conference and Conference Report made to Senate (S. Doc. 204) shows that

> "Unless the President stating the reasons therefor, in the public interest shall otherwise determine."

was added in conference.

Bound Vol. P. 3944.
Unbound P. 4231
March 23, 1918.

On the same day, was debated in the Senate:

Mr. Gallinger: Did I understand that reading of the Conference report correctly that notwithstanding the provision for public sale the President may order the property sold otherwise? If so, I should like to know why that provision is modified to that extent.

Mr. Underwood: I was coming to that. The only modification in that respect is that it does not leave everything to the Alien Property Custodian. The proposed change is "when the President shall determine", not "prescribe". As I understand when we provide that the President shall "prescribe" he may make rules and regulations but the change here is that "when the President shall determine" which will require the personal act of the President. That change has been made because there may be conditions arise in the disposition of this property when it would be impossible to sell it at public auction without it possibly going into the hands or control of alien enemies or persons who are unfriendly. The Committee of Conference thought that was wise and that it was within the line of the original bill as it passed the Senate, because when the alien property act originally passed the Senate there was no limitation whatever. Now, this merely gives the right to the A. P. C. in an exceptional case to appeal to the President to allow a certain portion of such property to be sold not by public auction but by negotiation. Then the President must indicate in writing why he has done so. I think the situation is thoroughly guarded from the standpoint of the Senator from New Hampshire.

Bound Vol. P. 3945
Unbound 4231
Conference Report not then voted on.

Bound Vol. P. 4004
Unbound
Conference report adopted by Senate.

Bound Vol. P. 3967-3969
Unbound 4253-4257
March 23, 1918.
Conference report (405) made in House. Statement by House managers refers to above clause but does not state reasons for including same.

Bound Vol. P. 4082
Unbound 4398
March 26, 1918.
Debated in House

Bound Vol. P. 4083-4084
Unbound 4399-4405
March 26, 1918.
Mr. Sherley:

". . . . . When it came to the second amendment, the provision as it had passed the Senate, while, doubtless intended to safeguard the disposition of this property, might have, and in many instances would have, resulted in transferring the property back into the hands of the very people that we desired to take it from, because by having an absolute requirement that the sale must be made to American citizens at public auction to the highest bidder, in many instances it meant that the minority interests, American in name only, would have been the actual purchasers, and the property would really be held in the future, as in the past, for Germany. No greater blow and no more legitimate blow can be struck in this country against

our enemy, Germany, than by depriving her of the industrial control that she had through ownership of many corporations and many industries in America. (Applause) And we would be lacking in ordinary common sense, to say nothing of patriotism, if we did not provide for a separation of these German citizens from control in great industrial matters. A recital could be made, taking hours, showing instance after instance where the German control of industries in this country is great enough to have very far reaching influence upon the life and the trade of this country. Now, we all of us recognized the need of ending that commercial influence and control. We also recognized the desirability of safe-guarding, so far as it can be done, the disposition of this property, which runs into the hundreds of millions, having in mind the major purpose of the legislation, and that presented the real problem to the conference, a problem that was not entirely easy of solution. We present to you the report in the belief that it has been intelligently solved. We provide that when the property is sold it shall be sold at public sale, after public advertisement, where the property, or the major portion of it is situated, to the highest bidder, who shall be an American citizen. That is the broad rule that we lay down as being the policy that ought to be and shall be followed in all these cases where there is not some compelling reason otherwise. But, having laid down that general principle, we provide that the President, for reasons stated, shall have the right to order the disposition of this property by private sale or otherwise . . . . ."

Mr. Longworth: Will the gentleman yield?

Mr. Sherley: "In a moment. And we further provide that after the sale has been made the Alien Property Custodian may upon order of the President set aside such sale for reasons stated, and subse-

quently the property may be sold by public sale or otherwise, as the President may direct. In other words, we state as the judgment of the Congress that the property, unless there be special reasons to the contrary, when sold, shall be publicly sold, but we give to the President the power in the interest of the nation to declare that it shall be disposed of otherwise when in his judgment it is necessary so to do in order to protect national interests. Now, I yield to the gentleman."

Same pages as above

Mr. Walsh: Now, may I ask the gentleman under what conditions, if he feels it is proper to state, would it properly arise whereby the President might decide that in the public interest the property should not be sold at public sale?

Mr. Sherley: I will answer the gentleman without undertaking to name specific cases, though I think they could be named. Here is a certain industry owned 10 percent, or 20 percent, or 30 percent by naturalized American citizens, with 60 or 70 or 80 percent owned by German citizens, all of the capital in the first instance having been practically German. That minority interest might, and in many instances probably would, be in a position to bid most for the property, knowing both its value and also being practically bidding for the interests that were there in the first instance. He would be technically an American citizen, and yet his money come from and his heart be in Germany. We have scriptural warrant for the saying that where a man's treasure is there is his heart also. In such a case it would be in Germany, and not in the United States. It might be highly desirable that the sale should not be permitted to go to such minority interest.

There is even another case that is conceivable that is not related to the quesion of aliens and alien enemies. There might be a purchase of some of these corporations which represent great dominant influences in certain trades by their large rivals in business that would give to them, if they got possession of the property, a complete monoply, and it might not be desirable in the interest of the public that that should occur.

There is in this morning's paper a statement touching an alien enemy corporation owning large sugar properties in the Hawaiian Islands, and the statement—I do not know how accurate it may be—is to the effect that an effort had been made, which was circumvented by the A. P. C., for the transfer of that property to certain American citizens so as to prevent the taking over of the properties and subsequent sale by the Alien Property Custodian. Suppose that particular property, assuming the statements in the papers are true, should be put up for sale and the purchaser should be the minority American interest, which is American in name only.

It would be the height of folly to permit a sale to take place and that property to come back into the possession of the people who would be operating it simply until the time when they might again give to German citizens and the German Government the influence and control which such ownership carries with it.

Mr. Walsh: Now, just a further question. I agree with the statement of the gentleman, but I thought that an explanation ought to be part of the record. Of course, the second amendment which the gentleman has been discussing does not make it compulsory?

Mr. Sherley: It does not.

Mr. Walsh: And certain businesses which are manufacturing things necessary for the war—they can be carried on, I assume, by the Alien Property Custodian if he deems it advisable?

Mr. Sherley: That is true.

Mr. Walsh: Under the second amendment?

Mr. Sherley: That is true, and of course there is certain property coming into his hands where manifestly there is no reason for the sale. There have come into his hands, for example, stock in United States companies, in the aggregate representing millions in value. Some German owns certain shares of stock, we will say, in the Pennsylvania Railroad, or in the United States Steel Co., or in the Illinois Central Railroad, or any other of the great corporations of the Country. There is no reason in the world for the selling of that stock. It could be held, and the dividends as they accrue, if they should accrue, turned into the Treasury of the United States, and at the end of the war such disposition of that property could be made as will result from the final adjustment of the claims of the two Governments. But there are many going concerns that are German owned, either partially or entirely, many of them representing dominant influences in certain commercial lines. For this country to sit quiet and permit that control to continue; aye, even more than that, to have the government's own Custodian take charge of them have them expanded by virtue of the very war that Germany has forced upon us, and have these people safeguarded in their property, and at the end of the war that they have forced upon this country have that property turned back greatly enhanced in value and in size, would be so idiotic that it is not conceivable that any people would contemplate it for a moment of time. (Applause)

Bound Vol. P. 4090
Unbound 4405
March 26, 1918.

Conference report agreed to.

DEFENDANT'S EXHIBIT No. 32-A.

EXECUTIVE ORDER DATED FEBRUARY 26, 1918.

(Note: Same as Plaintiff's Exhibit No. 690 and not reprinted here. See Record, Exhibits, Volume III, page 1778.)

DEFENDANT'S EXHIBIT No. 32-B.

EXECUTIVE ORDER DATED APRIL 2, 1918.

(Note: Same as Plaintiff's Exhibit No. 691 and not reprinted here. See Record, Exhibits, Volume III, page 1788.)

DEFENDANT'S EXHIBIT No. 32-C.

EXECUTIVE ORDER CONCERNING CERTAIN SALES TO BE CONDUCTED BY THE ALIEN PROPERTY CUSTODIAN PURSUANT TO THE "TRADING WITH THE ENEMY ACT" AND AMENDMENT THEREOF.

[No. 2914.]

By virtue of the authority vested in me by "An Act to define, regulate and punish trading with the enemy, and for other purposes," approved October 6, 1917, known as the "Trading with the enemy Act," and the amendment to such Act embodied in "An Act making appropriations to supply urgent deficiencies in appropriations for the fiscal year ending June 30,

1918, and prior fiscal years, on account of war expenses, and for other purposes," approved March 28, 1918, I hereby, in the public interest, make the following determination, order, rule and regulation:

The Alien Property Custodian may sell at private sale, without public or other advertisement, any real property or any right, title, or interest therein of whatsoever kind; ground rents, leaseholds, options on real or personal property, stocks, beneficial interests in stocks, including voting trust certificates, and all other rights appurtenant to the ownership of stock, bonds, negotiable instruments or evidences of indebtedness, seats on stock or other exchanges; in parcels, lots, or quantities having a market value at the time of sale not exceeding Ten Thousand Dollars for each parcel, lot or quantity sold. Any such sale may be conducted at such place and upon such terms and conditions as to the Alien Property Custodian, or his authorized agent, may seem proper.

My reasons for the foregoing determination, order, rule and regulation are:

(a) The properties above classified cannot usually be sold to the best advantage at public sale after public or other advertisement.

(b) The sales hereby authorized may be made at the time and place of most favorable demand and upon such terms and conditions as may be necessary to secure the best market price.

(c) Unnecessary expense, delay and inconvenience may be avoided.

WOODROW WILSON.

THE WHITE HOUSE,
15 July, 1918.

DEFENDANT'S EXHIBIT No. 32-D.

EXECUTIVE ORDER OF JULY 16, 1918.

(Note: Same as Plaintiff's Exhibit No. 5, and not reprinted here. See Exhibits, Volume I, page 29.)

DEFENDANT'S EXHIBIT No. 33.

July 11, 1918.

Dear Mr. President: On April second last you issued an Executive Order (No. 2832) permitting the Alien Property Custodian to sell at private sale certain commodities therein named in lots not exceeding $10,000.00 in value. This did not cover real estate, stocks and bonds. At that time I thought I could best sell such property at public sale. I find, however, in some rather special cases it will be necessary to sell at private sale. For instance, I am installing some directors in an enemy trust company in New York, and, under the laws of the State, directors must be bona fide stockholders. I am obliged, therefore, to sell them some of the enemy stock. Obviously, I cannot do this at public sale because I do not want any but these proposed directors to purchase.

I am using this private sale power very sparingly, and only in cases where it is perfectly clear we cannot get results by public advertisement.

Very sincerely,

(Sgd.) A. MITCHELL PALMER.

To the President,
The White House.

DEFENDANT'S EXHIBIT No. 34.

July 11, 1918.

Dear Mr. President: I now have my selling organization complete and in good working order, and have given instructions for the immediate sale of nearly 40 enemy-owned corporations. I shall hope to sell 100 more within the next three months. Joseph F. Guffey, of Pittsburgh, will be sales manager, de-

voting all of his time to the work, and located in New York. The Advisory Sales Committee will be:

Otto T. Bannard, Chairman, New York,
Cleveland H. Dodge, New York,
George L. Ingraham, New York,
Ralph Stone, Detroit,
B. H. Griswold, Jr., Baltimore.

Before we actually put our program into effect, it is necessary to have a rather comprehensive executive order, fixing the powers and authorities of the Alien Property Custodian with respect to the management, operation and sale of the properties which we propose to "Americanise." I enclose draft of an executive order which we feel we must have before actually inaugurating our sales program. It is supplementary to the Executive Order of February twenty-sixth last, in which the powers and authorities of the Alien Property Custodian were defined.

Very sincerely,
(Sgd.) A. MITCHELL PALMER.

To the President,
The White House.

DEFENDANT'S EXHIBIT No. 35.

Statement by Senator Underwood at Page 3593 of Congressional Record of March 11, 1918.

MR. UNDERWOOD. I do not either. I agree with the Senator about that, but in order that there might be no contention about it, I am applying the term property of merchants to every German who lives in the United States, and the time is up.

Now, why is this a blow to the German interests, and why is it necessary to protect our country that

this provision should be passed? We are fighting the German peasant behind San Mihiel. We are attempting to destroy the lives of men who had nothing to do with bringing on this war, who probably have no desire to continue it, and who are doing it because they are hurled to the battlefield by an autocratic power. What we want to do is to wipe them out of the way so that we can win the victory. But this property is owned by the junker class of Germany, not the men on the battlefield but the millionaires, the titled class, lords of the manor, the Kaiser himself, and they have shown every hour and by every act their desire to protect this property, own it, and control it when the war is over. I would far rather fire a shot at Berlin and at the junker class of Berlin who brought on this war and keep it going, than I would fire a shot behind San Mihiel at the peasant of Germany.

It is necessary for us to take over this property, not only its control and possessions but absolutely to Americanize it, to protect American interests during the war. It is necessary for us to take it over and let the German junker class know that America has her back against the wall, that we are fighting this war in earnest, that we are willing to fight it all along the line, and that there is no surrender on our part until a victorious settlement of the issues involved. We are too slow already. We ought to move faster.

I can understand how there are some interests in America that are apprehensive against the passage of this legislation. There are some interests in America that own property in Germany. I understand from Mr. Palmer's testimony—he so states—the largest ownership of property in Germany is the Standard Oil Co. Most of the property that American citizens own in Germany is controlled by great corporations. Now, I do not desire to see their property confiscated in Germany, but Mr. Palmer said, and we know it to

be a fact, that where there is one dollar's worth of American property invested in Germany there are more than a hundred dollars of Germany property in America. Where they strike one blow at us in confiscating American property we strike the blow a hundredfold in taking theirs.

DEFENDANT'S EXHIBIT No. 36.

Opinion of Ramsay Hoguet.

MEMORANDUM RELATING TO THE TAKING OVER OF PATENT RIGHTS AND TO THE SALE AND CONVEYANCE OF THE SAME BY THE CUSTODIAN.

The cases of *Stephens vs. Cady, 14 How. 528, Stevens vs. Gladding, 17 How. 447 and Agar vs. Murray, 105 U. S. 126* specify the obstacles in reaching patent rights by seizure. In the case of *Stephens vs. Cady* (which arose under a copyright) the Court held as follows:

> "But the incorporeal right, secured by the statute to the author, to multiply copies of the map, by use of the plate, being intangible, and resting altogether in grant, is not the subject of seizure or sale by means of this process—certainly not at common law. No doubt the property may be reached by a creditor's bill, and be applied to the payment of the debts of the author, the same as stock of the debtor is reached and applied, the court compelling a transfer and sale of the stock for the benefit of the creditors. (20 J. R. 554; 5 J. Ch., 280; S. C. 4 Id., 687; 1 Paige, 637) But in case of such remedy, we suppose, it would be necessary for the court to compel a transfer to the purchaser, in conformity with the requirements of the Copyright Act, in order to invest him with a complete title to the property."

In *Stevens vs. Gladding* which refers to the former case of *Stephens vs. Cady*, patent rights and copyrights are treated in the same category in respect to seizure and sale at common law. In *Agar vs. Murray*, after referring to both of the foregoing cases, it was held that a patent right might be reached by a creditor's bill, the latter being an action in personam; and that the patent owner, if within the jurisdiction of the court, might thus be compelled to make a legal conveyance which, if he should refuse to do so, might be made by a trustee appointed by the Court.

It thus appears that the difficulties involved in the seizure and sale of a patent right at common law arise from two causes; (1) the fact that these rights are intangible and ordinarily not subject to seizure and (2) the fact that the statute creating them makes a written conveyance by the owner necessary to a transfer of the legal title. The fact that these difficulties may be surmounted by a creditor's bill will not help the Custodian because enemy property, as defined by the Act, belongs in most cases to parties who can not be reached by a creditor's bill.

But in interpreting the foregoing cases, it should be kept in mind that the "seizure" there referred to means "judicial seizure", that is to say, a seizure capable of bringing the property within the custody and control of a court. With such a seizure we are obviously not concerned; for under the Act we are considering, the property does not have to come into the custody of a court. The distinction between a judicial seizure and one made under an act of Congress authorizing the Government to take enemy property is fully discussed in the case of *Miller vs. United States, 11 Wall. 268.*

That case arose under the condemnation acts of 1861 and 1862 which provided that enemy property should first be seized by the President and thereafter

administered by a court in an action *in rem*. It was contended by a minority of the court that jurisdiction in an action *in rem* could not be obtained except in accordance with the procedure in admiralty and revenue cases, and that therefore intangible property could not be brought within the jurisdiction of a court in the absence of a special statute prescribing the manner and means of doing so. It was emphasized that the legality of all judicial actions depended upon notice to the party proceeded against, or whose property was taken into custody by the court, and that in the absence of some special statute which itself would constitute notice, the rules of judicial seizure must strictly apply. The majority of the court, however, held that the Acts of Congress authorized the President to take any and all enemy property within the United States, that such seizure was not a judicial seizure and that it might be made in a manner adapted to the nature of the property in question. The majority of the court also decided that, if they were to treat the President's seizure and the judicial seizure as one and the same act, it was sufficient to bring the property (shares of stock) within the jurisdiction of the court to serve a notice in the nature of an attachment upon the corporation in which the stocks were held, the theory being that the corporation was a quasi-trustee, and so held its stock, for its stockholders. For us, the chief point of interest in that case is, we think, the fact that a majority of the court distinguished between taking possession by executive order under an Act of Congress and taking possession under such rules and formalities as were necessary to bring property within the Jurisdiction of a court. In the one case, there were no formal rules or requisites to be complied with the executive simply taking possession of the property directed to

be seized in the mode best adapted thereto, while in the other case, (that of judicial seizure) the procedure must be such as to give a court jurisdiction over the property. In the latter case, as was noted in the dissenting opinion of Mr. Justice Davis, there might be no way to reach incorporeal property in the absence of statutory provisions as to the mode of constructive seizure.

In our opinion, therefore, the cases cited at the beginning of this memorandum, and which regulate in general the seizure of patent rights at common law have at most only a limited application to present considerations because the Custodian is not concerned with bringing property under the jurisdiction of a court but is simply concerned in taking possession of property under the direction of Congress. Specifically, he is required to investigate the status of enemy owned property, to determine whether or not he will take it over and finally, if he determines to take it over, to require that it be "conveyed, transferred, assigned, delivered or paid over" to him Sec. 7, (c). The Custodian's requirement or demand should obviously be made by notice to those in possession of the property to be taken over; and in case nobody can be found to be in possession, then by a general notice or proclamation. (See the last paragraph hereof in regard to the situs of a patent right.)

In case of physical property, it is obviously necessary for the Custodian to obtain control and custody of the same after issuing his requirement for delivery to him. In the case of intangibles, however, we are of the opinion that upon the issuance of the requirement or demand, the Custodian by operation of law comes into constructive possession. We are not now speaking of title to such property because delivery of possession does not necessarily mean that title to

the property vests at the same time; and particularly so, in the case of a patent title which the statue requires to be transferred by a writing signed by the legal owner. But insofar as concerns the taking of patent property into his control, it logically follows from the Act itself that the Custodian is in complete control thereof as soon as his requirement and demand has been made under Sec. 7 (c) and this conclusion is confirmed by the decision in *Miller vs. United States.*

That being so, the question is; may the Custodian, having thus taken possession of a patent right, sell and convey a good title thereto? We think unquestionably he can and that such conclusion must follow from the amended Act. As originally drawn, the Act required the Custodian to hold and administer as a common law trustee all of the property which should "come into his possession" and he might not dispose of the same by sale or otherwise except when necessary to prevent waste or in kindred cases. The amended Act, however, vests him with all the powers of the absolute owner of the property, and not only as to property which has actually come into his possession but as to any and all property which he shall have "required to be conveyed, transferred, assigned, delivered or paid to him"; and he may sell or dispose of the same on his discretion. In other words, the amended Act vests in him a complete legal title since the powers given him under the amended Act could not otherwise be exercised; and it is important to note that the change in the act indicates clearly the intent of Congress to vest title in the Custodian not only as to property which actually comes into his possession but as to all property which he requires to be delivered to him. It is obviously within the power of Congress to vest in the Custodian the titles to all enemy owned patents and that being the necessary

effect of the amended Act insofar as he may determine to take over enemy patents, it must be held that the Act has superseded the provisions of the Patent Act to that extent under the well recognized rule that a later special statute supersedes an earlier general one which is inconsistent with it, at least to the extent of such inconsistency.

We see no difficulty therefore in taking over patent titles under the present Act, even though they can not be seized under a common law execution and even though the Custodian can not reach the enemy owners in an equitable action to compel a transfer in writing.

Some special cases now remain to be considered in connection with the taking over of enemy owned patent rights.

In the first place wherever an exclusive license has been granted under enemy patents, and particularly where such license is the subject of exercise and use in this country, we should regard the licensee in each such case as being in possession of the patent right. It is analogous to a building held under a lease in that the right to its use for the period of the lease is an exclusive right secured to the lessee even against the lessor. In such a case it seems obvious that the only thing which the Custodian can take over is the legal title. Exclusive licenses under patents almost invariably arise out of bi-lateral agreements between the patent owner and licensee; and in any such case we believe the patent owner's interest or property right in the agreement may be demanded by the Custodian in which event title to the patent will then automatically vest in the Custodian under the Act. Where an exclusive license is a mere grant from the patentee and the licensee is not bound to him under contract, then, in our opinion this amounts to a complete assignment of the patent. *Waterman vs. MacKenzie, 134 U. S. 252,* unless the grant is for a severable part of the

patent right or runs for less than the entire term thereof. Where it is for the grant of a particular part of the patent right, then the remainder of the patent right may be required to be delivered to the Custodian with the same effect as to title as in the case of the demand of the whole patent right. Where, however, a grant of the whole monoply is made for less than the entire term, we would suggest that the reversion be left in the enemy owner until the term of the grant expires (which may obviously be after the war) since this leaves no substantial property right (only a naked title) in the hands of the enemy.

In the second place, it follows as a corollary from what we have said in the foregoing paragraph that the Custodian can not take and sell the monoply itself if a bona fide exclusive lease thereof has been granted to a person not an enemy. Contracts of license made before the war and not in contemplation of the war are perfectly valid and an enemy's licensee thus in possession of the monoply can not be dispossessed. It results therefore that the Custodian is powerless to sell and transfer a patent monoply to a third party upon the theory that it is enemy owned if such a bona fide exclusive license exists thereunder.

Patent applications are not subject to the provision of statute that assignments thereof must be in writing. Enemy property in patent applications may therefore be taken over by the Custodian and conveyed without any serious question as to title.

Secret processes are, in respect to title, in the same category as patent application. They give rise, however, to some serious questions in connection with the taking of possession thereof. Since possession means custody and control, it is obvious that the Custodian can not take possession of a secret process unless a disclosure of the process is made to him or to somebody in his behalf. Title to a secret process may well be

in somebody who is ignorant of the process itself; but possession certainly can not be. In taking over a secret process therefore the Custodian must demand a disclosure of the same.

Where an enemy owned secret process is subject to an exclusive license here, it is obvious that the same rule which applies in the case of enemy owned patents under which exclusive licenses exist, must apply to the secret process. Where for instance a concern in this country is licensed exclusively to practice an enemy owned secret process for a term of years, we doubt very much the propriety of an attempt upon the part of the Custodian to take over such process. Certainly, the Custodian can not take what by contract belongs to the exclusive licensee, and we believe that in all such cases the Custodian should not demand a disclosure of the process but should take over only what property rights the enemy has in the contract of license, if any, including the reversion of the process.

Section 10 of the Trading with the Enemy Act, in our opinion, does not interfere, in any way, with the taking over of enemy property in patents by the Custodian. That section simply applies, so far as it concerns enemy owned patents and applications therefor, to cases where the patents and applications continue to remain the property of the enemy. As soon as they are taken over by the Custodian, they are no longer enemy property. The obvious purport of Section 10, so far as it relates to enemy owned patents and applications therefor, is to permit the enemy to do certain acts and things in respect thereto and to permit certain things to be done in respect to the issuance of licenses thereunder, notwithstanding the general provisions of the Act. But the whole effect of this section, so far as it relates to enemy owned patents and applications therefor, depends upon the continuance of such property as enemy property. We might point out that

section 10 is introduced by the following clause: "That nothing contained in this Act shall be held to make unlawful any of the following Acts:" which of course suggests at once that the section is not exclusive. We are of the opinion, therefore, that this section must be treated as non-exclusive.

We have not overlooked, in rendering the foregoing opinion, that the Custodian under Section 6 is empowered to receive such enemy property only as is located *in the United States*, a provision which may be said to raise the question of the situs of a patent right title to which exists in a person outside the United States. It is possible to argue, of course, that the situs of a patent right is where the owner of the legal title happens to be; but we are aware of no decision so holding. A more logical and reasonable view is to regard the situs of a patent right, like that of any other property, as the place where it may be enjoyed or exercised. A right which can only be exercised in Massachusetts is naturally thought of as existing in Massachusetts and not in some other state. Similarly, a right which can be exercised in and throughout the United States, but nowhere else, is thought of as existing in the United States and not outside of the United States; and the Supreme Court has expressly declared that "these incorporeal rights (patent rights and copyrights) do not *exist* in any particular state or district; they are coextensive with the United States." *Stevens vs. Gladding, 17 How. 647.* In the case of physical property, the situs of the property certainly does not follow the holder of the legal title for if it did the only way to maintain title to physical property would be to carry it around; and we see no more reason to consider the title and situs of a patent as co-existing and constituting an exception to the rule which applies to all other kinds of property. For the reason therefore that no case has ever held that the situs of a patent

right necessarily follows the title, for the reason that it is less logical so to consider it and for the further reason that it would be an exception to the rule in the case of all other kinds of property, the title of a patent right should be regarded as separable from its situs which must exist where the property can be exercised and enjoyed, namely, within and throughout the United States and nowhere else. As was said in *Miller vs. United States, 11 Wall. 268,* referring to shares in a corporation, "This species of property does not require to be left in charge of any person for security and preservation and it is evidenced by certificates which are presumptively in the possession of the owner of the stock wherever he may be." Similarly, a patent right is evidenced by letters patent which are presumptively in the hands of the patent owner wherever he may be. That however does not determine the situs of a patent right any more than the location of the stock certificates determines the situs of a shareholder's interest in a corporation. The Commissioner of Patents who issues patents for the Government is in many respects analogous to the officer of a corporation who issues shares of stock for the corporation. The letters patent are merely evidence of the contractual relation between the Government and the patentee which resulted in the grant of the patent (a patent has oftentimes been held to be a contract) just as the certificates of stock are evidence of a similar relation between the corporation and its stockholders. There is thus more than one reason for considering the Commissioner of Patents as standing in the same relation to patentees as an officer of a corporation was held to stand in respect to its stockholders in *Miller vs. United States* for the purpose of serving a notice of the taking. But for the reason given in the foregoing part of this opinion, namely, the fact that the Custodian is not required to make

a judicial seizure in order to take possession of patent property, we do not think a service of any notice is necessary, as we have already stated. Nevertheless, to exercise an abundance of precaution, the Custodian might well serve notice upon the Commissioner of Patents in every case where he takes over a patent right, which notice could be published in the Patent Office Gazette and which therefore, should notice to enemy patent owners ever be deemed a requisite, would furnish probably as effective a notice as could be had in any other way. The Commission might also record the notice which, when done in the case of mortgage of a patent right, "is equivalent to a delivery of possession, and makes the title of the mortgagee complete towards all other persons, as well as against the mortgagor." *Waterman v. Mackenzie, 138 U. S. 252.*

DEFENDANT'S EXHIBIT No. 37.

Opinion by Ramsay Hoguet.

September 25, 1918.

Lee C. Bradley, Esq.,
Office Alien Property Custodian,
Sixteenth & P Streets, N. W.
Washington, D. C.

Dear Mr. Bradley:

In connection with the question to be decided by the Solicitor-General relating to the seizure and sale of United States patents owned by alien enemies, I have, in accordance with your request, entirely reviewed the matter and believe that the following brief summary of points should be considered by the Solicitor-General before rendering his decision:

I

In approaching the question to be decided, it is important to consider the following facts:

(1) There are now in existence over 600,000 United States patents for inventions, many of which are owned by enemy-aliens; and at the beginning of the war many so owned were being exploited in this country under contract with the enemy owners. In a large number of cases the inventions covered by enemy-owned patents are the basis of important industries being conducted in this country.

There are at least 200,000 registered trade marks, labels, etc. on record in the United States Patent Office, many of which are registered under the names of enemy-aliens; and a large number of these enemy-owned trade marks are used in businesses in this country at the present time.

(2) There is an unknown number, undoubtedly a very large number, of pending applications for United States patents filed by enemy-aliens covering inventions belonging to them. The patent statutes prescribe that failure to prosecute such applications will result in their abandonment and in many cases abandonment of an application works an abandonment of the invention contained therein.

(3) At the time of the passage of the Act many United States citizens were prosecuting applications for patents in, and owned foreign patents granted by, enemy countries which patents in most cases are subject to the payment of an annual tax; and failure to prosecute said applications or pay the annual tax would result in the loss of such patent rights as were involved.

(4) At the time of the passage of the Act, many powers of attorney were in existence authorizing American representatives of enemy-aliens to prose-

cute patent applications and otherwise to act in respect of the preservation of patent property in this country owned by enemy-aliens.

In accordance with the general provisions of the Act, were it not for Sec. 10, it would be unlawful to do many of the acts and things which it is necessary to do under our laws and statutes (and which were being done when the Act was passed) to preserve and maintain valid property rights in enemy-owned patents etc. as tabulated above.

For instance, an enemy-owned invention could not have been made the subject of an application for patent during the war and accordingly the right so to do might be lost for all time; an enemy filed patent application could not have been prosecuted and would therefore have become abandoned; an American citizen owning a foreign patent granted by an enemy country would have been forbidden to pay the annual tax thereon and such patent would therefore have been lost to him; an American manufacturer engaged in exploiting any enemy-owned United States patent in accordance with an agreement made before the war could not have lawfully continued such business; the use of enemy-owned trade marks would have been virtually forbidden; in short, the general provisions of the Act made it unlawful to do the things which our statutes and laws required to prevent property in enemy-owned inventions, trade marks and patents from lapsing or becoming abandoned and also made it unlawful for American manufacturers to continue their exploitation of enemy-owned patents as heretofore.

The general provisions of the Act, therefore, standing alone, would have created a very serious situation so far as enemy-owned patent and trade mark property was concerned. Things would have been brought to a stand-still upon which the validity and

continued existence of these rights depended; and that would have been equivalent to legislating them out of existence. Section 10 was therefore inserted. *But it didn't go in as an exception.* That is to say, it did not provide that patents, trademarks, etc. should not be subject to the general provisions of the Act. It provided that *the certain acts and things specified in the sub-sections* of Sec. 10 should not be unlawful.

The real question is, therefore, whether the making of these certain acts and things lawful (1) is the same thing as exempting patents, trade marks, etc. from the general provisions of the Act or (2) indicates a legislative intent so to do. Certain it is that without Sec. 10 this species of property falls within the terms defining the general provisions and should not be exempt from their operation any further than Sec. 10 specifies or clearly implies.

The acts and things authorized by Sec. 10 notwithstanding the general provisions, are the following:

(a) Sub-section (a) provides that an enemy may file applications for patents and trade marks and may also prosecute such applications. This sub-section therefore only permits such acts and things to be done (contrary to the general provisions) as are necessary under the patent statutes and trade mark laws to prevent enemy-owned inventions, trade marks and applications therefor from becoming abandoned and the inchoate rights of property therein from becoming forever lost.

(b) Sub-section (b) provides for the prosecution of applications for foreign patents in enemy countries and also that the current annuities on foreign patents granted by enemy countries and owned by citizens of the United States may be paid (contrary to the general provisions); and therefore takes care of a situation which if left to the general provisions

of the Act would have adversely affected many United States citizens.

(c) Sub-section (c) provides a lawful means for the continued exploitation of enemy-owned patents, trade marks, etc. begun before the war under license agreements with enemy owners, and which exploitation was being carried on when the war commenced. It also, by its terms, authorizes the grant of licenses under enemy-owned patents, trade marks, etc. to American citizens or corporations, even though the latter have had no previous relations with the enemy patentees. Since however, both (a) and (b) deal principally with relations already established and in existence at the passage of the Act, it would seem that (c), which immediately follows (a) and (b) was also supposed to deal primarily with already established relations with the enemy. Thus (a) would legalize the prosecution of enemy-owned pending applications for United States patents, (b) the prosecution of pending applications of United States citizens for patents of foreign countries and (c) the right of United States citizens to continue working under enemy-owned patents *as licensees* thus preserving the continuity of industrial conditions established thereunder. And whatever the scope of these sub-sections in terms, it is to be presumed that the immediate necessities, that is, the existing relations were primarily in view in enacting these sub-sections.

(d), (e), (f) Sub-sections (d), (e) and (f) relate to Section (c) and describe the terms and conditions upon which the acts authorized by Section (c) shall be allowed.

(g) Sub-section (g) provides the legal sanction for enforcing the provisions of sub-sections (c), (d), (e) and (f). That is to say, there was to be no free use of enemy patents. Returns were to be made for the use of enemy-owned patents, just as debts owing

to the enemy were to be reported, to the Custodian. Without such sanction, few would confess to the use of enemy-owned patents by accepting a license under sub-sections (c), (d), (e) and (f) and thereby make themselves liable to compensation suits; and the result would be that subsections (c), (d), (e) and (f) would be much less effective.

(h) Sub-section (h) refers specifically to the powers of attorney granted by enemy-aliens for the purposes mentioned in sub-section (a), that is, for the purpose of preparing and prosecuting applications and also for the purposes mentioned in sub-section (g).

(i) Sub-section (i) relates to withholding a patent application from issue where for war purposes it is best that the invention shall not be published. Our patent statutes prescribe that applications shall be prosecuted to allowance and issue *within six months thereafter*. This section provides for an indefinite suspension contrary to the patent statutes.

What the foregoing analysis shows then is this: That the provisions of Sec. 10 were essential primarily to the preservation of certain existing relations involving enemy-owned patent and trade marks property, if this species of property was included within the general provisions of the Act. It follows therefore that if Sec. 10 raises any presumption at all in regard to the scope of the general provisions, that presumption must be that the acts and things allowed by this section were so allowed because the species of property to which they relate was included in the general provisions.

II

Patents are property. If there were ever any doubt about this it has long been definitely settled (Consolidated Fruit Jar Co. v. James T. Wright, 94 U. S. 92, 97). Being property, patents are within the

broad designation of Sec. 7 (c) unless, and to the extent, specifically excepted in some other part of the Act.

Besides the well understood intention and policy of Congress to gather up all enemy property and place it in the hands of the Custodian, there is the rule of statutory construction that general terms of an act include everything falling within them not clearly within or inconsistent with any stated exception. If it had been the intention of Congress to exempt patents from the general provisions of the Act and commit them exclusively to the provisions of Sec. 10, a simple and direct statement to that effect would have been employed. Sec. 10 for example, would have been introduced as follows: *Except as provided hereinafter in this section, patents, etc. shall not be subject to the provisions of this act.* That being the simple, obvious and direct way of excepting this species of property, it follows that the exception only of specific acts in respect thereof, as was actually done, indicates a legislative intent not to exempt the property itself but only the specific acts in relation to the property which are stated in the section. To extend an exemption of specific acts to include all acts in respect to the property to which the specifically exempted acts relate, is clearly contrary to the principles of statutory construction.

III

Moreover, there is an important practical consideration which explains why Congress exempted specific acts in relation to this species of property rather than the property itself. If Congress had exempted patents from the general provisions of the Act and left them exclusively to the provisions of Sec. 10 then all of this species of property would re-

main in the hands of the enemy except such as an American citizen or an American corporation might be willing to acquire by way of licenses in accordance with the provisions of Sec. 10. The President himself could take no initiative in acquiring even the slightest right in enemy property of this kind and would be entirely powerless in disturbing the status quo of enemy ownership, except and to the extent that some American citizen or corporation might apply for a license. This would manifestly mean that by far the greater number of enemy-owned United States patents would continue to be held and controlled by the enemy (the records of the Federal Trade Commission show that relatively a very small number of applications for licenses have thus far been received).

If such be the situation, there is no reason why an enemy owner cannot sell and convey to a neutral the legal title to this United States patent or create a valid lien upon it in favor of a neutral; for if the United States declares through Congress that it will not exercise its sovereign right to condemn the property of its enemies, this virtually guarantees, at least to a neutral, that he may take good title from the enemy. And if the enemy may realize money by selling or mortgaging his patent titles, then the purpose of the Act is, to this extent, defeated.

It is of course possible that Congress intended so to enact; but no consistent reason appears for the conclusion that Congress intended to obtain full control over every other conceivable species of enemy property and to allow the titles to enemy patent and trade mark property to remain in the hands of the enemy. Were patents expressly excepted from the general provisions of the Act, there would be no need of searching the legislative intent in this respect. But since patents are not excepted expressly, they must

be held to be within the general provisions unless a legislative intent not so to leave them can be discerned. Practical considerations become of importance in establishing a legislative intent not specifically expressed in the language of an act. It follows therefore that since it would defeat the purpose of the Act to leave patent and trade mark titles in the hands of the enemy, a legislative intent to the contrary must be presumed.

IV

Any construction of the Act which exempts patent property from the general provision thereof and makes it subject exclusively to the provisions of Section 10 will lead to the utmost confusion and uncertainty in disposing of enemy-owned businesses and will be productive of many claims against the Government after the war. This much appears from facts already established in respect to various enemy-owned businesses taken over by the Custodian and now being prepared by him for sale under the amended act.

Take a typical case. A large color manufacturing concern was offered for sale by the Custodian during the week of September 15, 1918. All of the stock thereof was formerly owned by enemy aliens who also owned and held title to certain patents under which some of the colors were manufactured. These enemy-aliens also held title to all of the trade marks employed by the American company as well as to the good will of the business, since the American company was only the agent of the foreign owners, having been organized to conduct a business which these owners had originally commenced in this country and which was never assigned to the American company directly or indirectly and for which the foreign owners never received any consideration from the American company.

In such a situation, a purchaser of the stock of the American corporation must rely upon (1) either obtaining an exclusive license to use and enjoy all of the patent, trade mark and good will property used in the business of the American company and belonging to the enemy owners or (2) this property must be purchased outright together with the stock of the American company. Otherwise, the purchaser will secure nothing but the physical assets, plant, equipment, current accounts, etc. of the American corporation.

In the nature of things, the patents, trade marks and good will associated with the American business must go with the business, if the purchaser thereof is to carry on that business as heretofore and realize the profits which that business should bring to him. A purchaser who takes over a concern of this kind cannot be expected to bid and pay for anything but physical assets if that is all he gets; and the inevitable result of separating patents, trade marks and good will from the rest of the business will be that a concern of this kind cannot be sold for anything like what it should bring. And if Congress, in enacting the present Act, has made it impossible to take over and sell patents, trade marks, etc. which are essential to conduct a business as it has been conducted heretofore, and if for this reason much less is realized from the sale than the sale of the business as a whole would have brought, it seems clear that this may furnish a substantial claim on the part of the German owners after the war.

From the standpoint of a purchaser in such a case it *must* be known at the time of bidding what he is *ultimately* to get. He cannot depend upon the possibility of securing an exclusive license under the patents, trade marks, etc. of the business upon which he

is bidding. There is no positive provision in the Act which would compel the President to grant such a license, though it is hard to conceive that the President would refuse one in such a case. Still it is possible. But by far the greater objection on the part of the purchaser is that if such a license is obtained it will require the deposit from time to time of a tentative royalty which may even be increased after the war by the courts, the whole arrangement being subject to an infringement suit, that is, to costly and difficult litigation at an indefinite future time. For the purchaser therefore the transaction involves uncertainties upon which no safe bid can be made.

In the example above referred to the enemy owners received no remuneration, other than dividends from their stock, for the use of such patents, trade marks, good will, etc. as the American corporation enjoyed; but if the purchaser of the stock of the American corporation, in order to enjoy the same rights, must accept an exclusive license and agree to pay whatever the value of the use of this property is later adjudged to be worth; then it is confessedly impossible to place the American purchaser in the same position as the original enemy owners, upon the sale of the property. And the purpose of the amended Act is defeated.

These are some of the considerations which suggest the confusion and uncertainties, not to say impossibilities, which will arise in disposing of enemy-owned businesses separately from the patents, trade marks and similar rights associated therewith. And the conclusion can only be that it is wholly impracticable to make such a separation and that if possible the Act must be construed to permit enemy-owned patents and trade marks used by a going concern may to be sold with that concern.

V

Now, it is entirely consistent with the *terms* of the Act that any enemy-owned patent property which it seems desirable to seize shall be taken over and sold by the Custodian.

There may be many cases where it will not be desirable or practicable to take over enemy-owned patents, etc. and those cases may be administered under Sec. 10. In fact, the practical impossibility of taking over all enemy-owned patents suggests another reason for the enactment of Sec. 10 (c); for without a complete investigation of patent titles in the United States Patent Office, no complete seizure of enemy-owned patents could be made, and even with a thorough investigation in the Patent Office, it would be impossible to determine definitely and finally all patent titles owned by the enemy.

Where therefore title to a patent of importance in an American industry, or in a business about to be sold by the Custodian, appears to be in any enemy-alien, such a patent should be taken over by the Custodian and administered by him in any manner which seems best so far as the interests of the United States and American purchasers are concerned. Such a taking over by the Custodian, is according to the Act, under the direction of the President; and the fact that the President under Sec. 10 (c) may also issue a license under such a patent does not and should not prevent the President from taking over the entire patent title if he deems it advisable.

That would of necessity still leave a large number of enemy-owned patents still subject to Sec. 10 (c) because it is inconceivable that the President could, or would if he could, take over all enemy-owned patent titles for the reason that many of such patents are probably of no importance and as to such there would be less need or reason for disturning the status quo.

Nevertheless, as to these patents not taken over, if an American citizen or corporation desires a license to exploit the same such citizen or corporation may apply to the President for a license. This leaves Sec. 10 (c) fully operative for any and every case which should properly come under it. But where a patent has been taken over by the Custodian it can no longer be subject to Sec. 10 because such a patent is no longer "owned or controlled by" an enemy. The Act seems perfectly plain in this respect and should so be enforced.

VI

It has been said that in accordance with the decision in re the claim of Marcuard (The Confiscation Cases, Fed. Cas. 3097) valid claims of neutrals may be prejudiced if enemy-owned patent rights are seized under the Trading with the Enemy Act. But, obviously, no *valid* lien held by a neutral could be destroyed in condemning an enemy-owned patent (Citizen's Bank of Louisiana v. United States, 20 Wall. 114). In that case it was held that in condemning enemy property in land, the United States took the land subject to any valid lien. The same rule would of course apply in condemning enemy patents under the present Act.

Moreover, if patent titles should not be taken over because of the possibility of such claims or liens being held by neutrals, then shares of stock should not be taken over for the same reason. It is more than likely that many shares of stock which have been taken over by the Custodian, will be found after the war to have been subject to valid liens held by neutrals on account of loans made prior to the war. This is much more likely to be the case in connection with shares of stock than in connection with patent titles; and therefore the objection urged in this behalf, if it be an objection, should apply to any and all property,

shares of stock in particular, rather than being advanced merely in respect to patent titles.

The decision in Marcuard's case, as made by the Circuit Court (supra) expressly holds that no lien can be placed upon enemy property while it is subject to the control of the United States. The enemy may of course contract a valid debt with a neutral and that debt may be enforced in our courts, as was held in the Marcuard case; but such debt could not be secured by a lien upon enemy property while under the control of the United States. Said the Court on that point: "Every attempt to deal with property within the Union lines would have been abortive and void"; it "was forbidden by public proclamation of the President, and by usages of belligerents"; and "Marcuard, in taking a mortgage from Slidell on property within the Union lines took the risk of the exercise by the Government of the United States of its right as a sovereign power engaged in war, to confiscate the property of its enemies."

Conclusion

I sum up, therefore, my reason for concluding that patents, trade marks, etc. are included within the general provisions of the Trading with the Enemy Act and are not subject exclusively to the provisions of Sec. 10 of that Act, as follows:

First, because it appears that Sec. 10 was unnecessary to take care of existing or already established relations with the enemy in respect to this species of property, which relations arose either by operation or statutes governing such property or by contract with United States citizens; and that Sec. 10, by exempting certain acts and things in respect to this property, creates the presumption that the property itself was considered to be within the general provisions.

Second, because the exemption of certain acts and things in respect to patents, trade marks, etc. is not the same as the exemption of patents, trade marks, etc. themselves and that therefore any extension of the exemption to patents and trade marks themselves would be equivalent to exempting all acts and things in respect thereto instead of the specific acts and things referred to in the section, and would be contrary to the principles of statutory construction.

Third, because the exemption of patents, trade marks, etc. as a whole would defeat the purpose of the Act since it would permit patent and trade mark titles to be sold or mortgaged by the enemy to a neutral; and thus the enemy would be able to realize money or other things thereon which might assist in the prosecution of the war against the United States.

Fourth, because it would defeat the purposes of the amended Act in that many enemy-owned businesses could not be practically disposed of to American purchasers.

Fifth, because the *terms* of the Act do not forbid but actually permit this property to be demanded and seized by the Custodian without, preventing Sec. 10 from being fully operative, in practice, in a large number of cases.

Sixth, because all valid liens of neutrals would not be disturbed by the taking over of such property and by the sale thereof any more than by the grant of licenses under Sec. 10.

Respectfully submitted,

(Sgd.) RAMSAY HOGUET.

DEFENDANT'S EXHIBIT No. 38.

August 10, 1918.

Honorable Thos. W. Gregory,
Attorney General,
Washington, D. C.

My dear Mr. Attorney General:

Section 7 (c) of the "Trading with the enemy Act" provides:

> "If the President shall so require, any money or other property owing or belonging to or held for, by, on account of, or on behalf of, or for the benefit of an enemy or ally of enemy not holding a license granted by the President hereunder, which the President after investigation shall determine is so owing or so belongs or is so held, shall be conveyed, transferred, assigned, delivered, or paid over to the alien property custodian."

The powers granted the President by this section were by Executive Order vested in the Alien Property Custodian.

The powers and duties of the Alien Property Custodian in respect of money and other property conveyed, transferred, assigned, delivered or paid over to him, or required so to be, are found in Section 12 of the "Trading with the enemy Act" as amended by the Act approved March 28, 1918.

I beg to request an official opinion whether patents, trade-marks, copyrights, etc., are included within the word "property" and are, as such, subject to demand under Section 7 (c) and to administration and disposition under Section 12.

The question is of grave importance to this office. Certain enemy persons are the owners of American

patents which are being used and enjoyed by American citizens under more or less informal arrangements with the enemy owners which do not amount to a legal assignment of the patents, or to an express license to use the process covered thereby. Such is the case, perhaps, with the majority of those American corporations in which, prior to the demand of this office, an enemy or enemies owned the majority of the capital stock. In many of these cases the value of the assets and business depends very largely upon the continued right to use such patented processes. Having taken over the enemy stock in such corporations, I now propose to sell the same to American citizens, but the stock must have comparatively small value unless the corporation is vested with the legal right to continue the employment of the patented processes. In the meantime, the Federal Trade Commission is issuing licenses to competitors of these corporations and thereby diminishing or destroying the value of their business.

My view is that patents, trade-marks, copyrights, etc., are property within the meaning of Sections 7 (c) and 12 of the "Trading with the enemy Act" and subject to demand and administration as other property. For your information I submit herewith an opinion on the subject prepared by Ramsay Hoguet, Esq., a patent attorney of New York, who is acting as my counsel in patent matters. I have also taken the liberty of presenting the question informally to Mr. Solicitor General Davis.

May I suggest that if it be held that enemy owned patents are subject only to license under Section 10 of the "Trading with the enemy Act" and not to sale or other disposition by the Alien Property Custodian under Section 12 of the "Trading with the enemy

Act", the result will be to defeat the policy of the Administration to permanently and completely destroy the control of American commerce and industry by the enemies of the nation.

Certain departments of the Government, including the Navy Department, are anxious to purchase outright patents which are owned or controlled by enemies, and I have been taking steps to effect such sales, on the assumption that the power so to do was vested in this office after demand therefor under Section 7 (c) of the Act.

Yours very truly,

(Sgd.) A. MITCHELL PALMER.

DEFENDANT'S EXHIBIT No. 39.

FEDERAL TRADE COMMISSION

WASHINGTON

November 1, 1918.

JOHN FRANKLIN FORT,
Commissioner.

My dear Mr. Palmer:

I have carefully gone over all your suggestions and my own in the matter of an Executive Order under the amendment made to the Urgent Deficiency Appropriation Bill.

So far as agreement is concerned, I can only *consent* to an order such as I am enclosing herewith, striking out the whole of the private sale clause, and out of paragraph 2, as originally drawn by you, the five lines therein contained, reading: "provided that no power granted," etc., and ending with the word "issued." I can see no reason for this sentence which

I have stricken out. I can not understand why it was placed there.

I would not want to consent to changing the orders which the President had made under his original Executive Order without his approval *before* it was put in the order to be presented to him. I do not see why you should not continue to have such power as was given you under your original order, and I do not see why the amendment should be out of the limitations and restrictions which the President enjoined in the original order.

As the order (I am sending) now stands, it confers upon you all powers given the President by the amendment which has just passed. That is the intent of paragraph 1.

By paragraph 2 of the proposed order enclosed, all present Executive orders still apply and are left in force.

Paragraph 3 leaves the Federal Trade Commission exactly as it is, as to its power to grant licenses, but one condition is imposed by a proviso, marked "(1)," which is an additional restriction upon the power of granting applications made to it for licenses under Sub-section (c) of Section 10 of the original Act.

In order to protect your interests, it is provided that in case you desire, you may appear and object to the issuance of any license, and if you do not desire to appear in person, you may file objections with the Commission, and thereby, we restrict the power of this Commission to grant any license until after the expiration of fifteen days' notice to you of the application pending before us for such license. That will give you knowledge of everything that is going on here at all times, and opportunity to object, and to state your reasons why objection is made to the issuance of a

license, and as you know, this Commission has always endeavored to respond to any just request on your part to prevent interference in operation under the Act.

It seems to me, that with the power you now have from the President, under the previous Executive Order of October 12, 1917, you are amply protected, and no one is injured (except possibly the Federal Trade Commission in connection with patents you may seize), but that is so unlikely to raise a conflict or work harm that I have decided that it is not worth while to raise that question. We have always gotten along so nicely, that I hope this proposed Executive Order will meet your views, and if it does, and the President shall approve, I, of course, have not the slightest objection to your applying to him without my presence.

Of course, I do not know the views of the President on this matter, and would, therefore, prefer if you apply for the order in my absence, that you should show this letter to him, but if larger power than this is asked, the Commission would like to be heard.

Very truly yours,
JOHN FRANKLIN FORT.

Hon. A. Mitchell Palmer,
Alien Property Custodian,
Washington, D. C.

DEFENDANT'S EXHIBIT No. 39-A.
Enclosure With ~~Plaintiff's~~ DEFENDANT'S Exhibit No. 39.

EXECUTIVE ORDER

By virtue of the authority vested in me by "An act to define, regulate and punish trading with the enemy, and for other purposes," known as the "Trading with the enemy Act," approved October 6, 1917, I hereby make the following orders and rules and regulations:

I. I hereby vest in the Alien Property Custodian the executive administration of all of the provisions of Sub-section (c) of Section 7 of said "Trading with the enemy Act" as amended by an Act entitled "An act making appropriations to supply deficiencies in appropriations for the fiscal year ending June 30, 1919, and prior fiscal years, on account of war expenses, and for other purposes," approved October , 1918; and said Alien Property Custodian shall have the power and authority to prescribe forms and procedure for the exercise of the powers and authority vested in him.

II. In the executive administration of said Sub-section (c) of Section 7 of said "Trading with the enemy Act," the Executive Orders heretofore issued by me by virtue of the authority vested in me by said "Trading with the enemy Act" shall apply, and said Alien Property Custodian is hereby vested with all of the powers and authority heretofore granted to him or vested in him by any Executive Orders heretofore issued by me not inconsistent with this Order.

III. The power and authority heretofore vested in the Federal Trade Commission to issue, pursuant to the provisions of Sub-section (c) of Section 10 of

the "Trading with the enemy Act," or to withhold or refuse a license to any citizen of the United States or any corporation organized within the United States, to manufacture or cause to be manufactured a machine, composition of matter or design, or to carry on or cause to be carried on a process under any patent, or to use any trade mark, print, label or copyrighted matter owned or controlled by an enemy or ally of enemy, is hereby continued in full force and effect provided:

(1) That said Federal Trade Commission shall notify the Alien Property Custodian of all applications made to it for licenses under said Sub-section (c) of Section 10 of the Trading with the enemy Act, so that he may, if he so desires, appear at any hearing and object to the issuance thereof. The Alien Property Custodian, in lieu of appearance, may file with the Federal Trade Commission objections to the issuance of any such license. In no event shall any license be issued until after the expiration of fifteen days after such notice of the application shall have been given to the Alien Property Custodian.

DEFENDANT'S EXHIBIT No. 40.

Report to John Franklin Fort by Edward S. Rogers.

ESR-Hn 1-16-18

MEMORANDUM FOR GOVERNOR FORT.

It is a matter of common knowledge that the manufacture of chemicals, dyes, intermediates, medicines, and the like, was one of the most important of German industries. The Germans, owing to the fact that our patent laws readily lend themselves to it, had

what was practically a monopoly in this country. The United States is one of the few, if indeed it is not the only country, where product patents are granted. This permits not only the process of making, but the product itself, however made, to be patented and hence monopolized for seventeen years. Germany does not grant patents on any chemical compound however complex or new. There is no such thing as a product patent in Germany. Thus the laws of the United States secure to the German a monopoly which his own laws deny. Of the American chemical patents, 60% are granted to foreigners, of which the Germans have had over 70%.

Our patent laws, differing from most others, do not require domestic manufacture of patented articles or what is technically known as "working" as a condition to continuance of the patent monopoly. No manufacture by the German patent owners was carried on in this country but was confined to the subsidized chemical works of Germany which at the outbreak of the war, as was intended, were transformed into ammunition factories.

This resulted in a condition which discouraged any attempt on the part of American manufacturers to embark in this industry. In view of the subsidy they could not meet the German competition in price. They could never be free from the danger of expensive patent litigation because of the over liberality of our patent laws. The article itself however important, being patented, as well as the process of making it, discouraged attempts to devise new and non-infringing processes to get the same result. The fact that domestic manufacture was not required as a condition to continue patent protection prevented the building up in this country of groups of workmen skilled in the technique of the art and finally the disclosures of

methods in the patent specifications were, as a rule, insufficient and not infrequently were deliberately uncandid so that lacking knowledge of the so-called trade secrets of the Germans, even at the expiration of the patents, American manufacturers were unable to go into the business.

Section 10 of the "Trading with the Enemy Act" permits licenses to be issued to American citizens under enemy-owned or controlled patents. The salvarsan situation was the most serious. The pre-war price was $4.50 an ampule. Speculatively it brought as high as $45 an ampule and there was none to be had. The need of a supply was great and immediate. Four groups of licenses were issued to make this drug.

On January 11, 1918, the Surgeon General of the Army reports, "The present supply of the salvarsan is sufficient, and it bids fair to be sufficient in the future. The present price charged for it to the Army seems to be reasonable." This price is $1 an ampule.

Other licenses have been issued to manufacture other drugs. All of these licenses have been granted, not for the duration of the war, but for the life of the patents, thus insuring permanency. Licenses to make and sell products, not heretofore made and sold in this country, have been non-exclusive and have been issued to a number of independent manufacturers, thus insuring competition and an adequate and uninterrupted supply at a reasonable price. Conditions have been inserted in all of these licenses requiring that the price charged be reasonable; that the product conform in quality to prescribed rules and standards, and while as yet there has been no actual fixing of prices by the Federal Trade Commission, the licenses are issued by the Commission and are accepted by the licensee without prejudice to and with full recognition of the right

of the Commission to fix prices if and whenever the public interest requires.

The result of this work is beginning to be felt. Prof. Stieglitz, President of the American Chemical Society and head of the Department of Chemistry of the University of Chicago, on January 8, 1918, wrote, "I am preparing a summary of the present situation in regard to synthetic drugs and related products and we will then push a renewed inquiry in the wholesale drug houses, asking for information as to the present conditions. I believe they have been much improved through the work of your Commission."

In view of the present fairly satisfactory condition of the drug market, the Commission is turning its attention to dyes to the end that this important industry may be established in this country. There have been already filed applications to make dyes under sixteen separate German-owned patents.

These industries are of the utmost importance and their permanence is much to be desired.

I have been informed that work is now being done toward accumulating data for use in connection with peace negotiations at the conclusion of the war.

The restoration of the Germans to their chemical monopoly is a thing they will greatly desire. Its accomplishment would again place our people in the helpless position they were in in 1915 and 1916, when importations from Germany were cut off. A suggestion to restore the *status quo ante* with respect to industrial property and restore to German subjects in the United States and American citizens in Germany in patents, copyrights and trade marks all rights enjoyed before the war, would on its face be reasonable, but to grant it would work injury to our own people as a whole and hardship and loss on our manufacturers who have come to the rescue in a time of necessity.

The following is suggested:

(1) That a man or group of men be detailed to study the situation with reference to the adjustment of rights in industrial property in the treaty of peace and after the war.

(2) That it be ascertained what the countries associated with the United States in this war are doing in this respect.

(3) That a serious effort be made to ascertain what is being done by the German Government with American-owned patents in Germany. In this connection it is well to bear in mind that the complete destruction of American patent rights in Germany, valuable as they are, can be compensated for in money. American patents in Germany cover such things as typewriters, shoe machinery, reapers, binders, mowers, and the like. The German-owned patents in this country however enable their owners to monopolize drugs such as salvarsan, novocaine, verinol, a supply of which is indispensable to the public health.

(4) That steps be taken to amend our patent laws with a view of preventing a repetition of the abuses now possible. As a result of experience in the present war an act has recently been introduced into the English Parliament for this purpose.

DEFENDANT'S EXHIBIT No. 41.

THE WHITE HOUSE
WASHINGTON

22 November, 1918.

My dear Palmer:

It seems to me that it would not be wise to add just now to the list of alien names, in view of the virtual cessation of hostilities.

I am not now speaking of the merits of any par-

ticular case, but of the misapprehensions that would arise if we seemed to be taking advantage of the technical continuation of the war to get hold of this property. The misunderstandings which have arisen in connection with the taking over of the cables will illustrate the misinterpretations which can be put upon actions taken at this time, and I do not want to create the impression on the country that we are eager to get hold of these properties.

I hope that your judgment will coincide with mine, upon a reconsideration of this puzzling matter.

Cordially and faithfully yours,

(Sgd.) WOODROW WILSON.

Hon. A. Mitchell Palmer,
Alien Property Custodian.

DEFENDANT'S EXHIBIT No. 42.

(COPY)

THE WHITE HOUSE
WASHINGTON

27 November, 1918.

Dear Palmer:

I dare say you are right and I was wrong about the method of completing the sales you have already undertaken, and I will sign the proclamation I returned to you the other day, if you will return it to me. Your plan for the disposition of enemy property in the United States meets with my approval in principle, and I dare say will meet with it in detail when I have a chance to compare it with the proposals that will be made on the other side. I am going to take

the document over with me as a basis for discussion.

In haste,

Cordially and sincerely yours,

(Sgd.) WOODROW WILSON.

Hon. A. Mitchell Palmer,
Alien Property Custodian.

Original in Mr. Palmer's file. He will produce at trial.

DEFENDANT'S EXHIBIT No. 43.

PROCLAMATION BY THE PRESIDENT DATED NOVEMBER 29, 1918.

(Note: Same as Plaintiff's Exhibit No. 729-F and not reprinted here. See Record, Exhibits, Vol. III, page 1940.)

DEFENDANT'S EXHIBIT No. 44.

Cablegram From Bradley W. Palmer Dated April 23, 1919.

From Ammission
Paris
Dated April 23, 1919

For GARVAN from PALMER.

"Have salvarsan and neosalvarsan patents been sold? Advise fully. Urgent. If not sold, we all urge immediate sale and transfer of ownership prior to signature of treaty, if necessary leaving adjustment of price until later. Important that transfer of title be made.

(Sgd.) PALMER.

DEFENDANT'S EXHIBIT No. 45.

Cablegram From Francis P. Garvan to Bradley W. Palmer, Paris.

April 24, 1919.

Copy.

AMMISSION,
Paris.

For Bradley W Palmer from GARVAN

QUOTE: Salvarsan and neosalvarsan patents sold to Chemical Foundation two weeks ago Stop Now Foundations exclusive property Stop Title transferred and money value paid to Alien Property Custodian Stop Five patents sold include method of preparation and of administration and container Stop Urgent you send all facts to me immediately

Acting

FPG
MSH

DEFENDANT'S EXHIBIT No. 46.

FEDERAL TRADE COMMISSION
WASHINGTON

JOHN FRANKLIN FORT
COMMISSIONER

March 4, 1919.

Hon. A. Mitchell Palmer,
Alien Property Custodian,
Washington, D. C.

My dear Mr. Palmer:

This letter will be presented to you by Professor Stieglitz of the University of Chicago. He desires to have an interview with you on several matters, as he advises me.

He is exceedingly anxious as to the alien enemy

patents and as to their future operation, and I am very sure that you will be glad to talk with him about this, and get his ideas, because he is familiar with the whole subject, and his judgment is worthy of your careful attention.

I trust you will give him an interview, as he is entirely disinterested, and only anxious for the Government in the matter.

Yours very truly,
(Sgd.) JOHN FRANKLIN FORT.

DEFENDANT'S EXHIBIT No. 47.

NATIONAL RESEARCH COUNCIL
ACTING AS THE
DEPARTMENT OF SCIENCE AND RESEARCH
OF THE
COUNCIL OF NATIONAL DEFENSE

SUB-COMMITTEE ON SYNTHETIC DRUGS
JULIUS STIEGLITZ, CHAIRMAN
UNIVERSITY OF CHICAGO

March 14, 1919.

DEPARTMENT OF JUSTICE
MAR 18 1919
ATTORNEY GENERAL'S OFFICE

Attorney-General A. Mitchell Palmer
Washington, D. C.

My dear Mr. Palmer:

You will recall my visit to your office on March 4, when you kindly gave me a few minutes of your time to lay before you the situation in regard to the manufacture of arsphenamine (salvarsan or "606")

and of neo arsphenamine (neo salvarsan) in this country under the German patent rights after the declaration of peace. In accordance with your suggestion, I am now submitting in writing in the inclosed memorandum my recommendations, which you kindly agreed to keep in mind and to urge upon Mr. Garvan's consideration in connection with the proposed sale of German patent rights to an American research corporation as a holding company. At the end of the memorandum you will find a short summary with the specific recommendations made.

You will recall that I emphasized the fact that there are some ten million people in this country suffering in one form or another from syphilis, and that these ten million people and the public at large, exposed to infection, are depending in this matter on you and Mr. Garvan for the protection of their health. I believe there is no problem of greater immediate moment to the public welfare, but it is with the utmost confidence that I am leaving the problem in your hands as a proved public benefactor.

In conclusion, may I say that I have been interested in this problem first as chairman of the Committee on Synthetic Drugs of the National Research Council, then as scientific advisor to the Federal Trade Commission in connection with the issuing of licenses for synthetic drugs, and finally as special expert on arsphenamine of the Public Health Service, which commanded my services as the result of fatal complications experienced with the drug. I have directed research in this laboratory on arsphenamine for the past nine months. I have no financial or other private interests in the problem, and have never had any. I am serving simply as a matter of public duty. I am

Yours respectfully,

(Sgd.) JULIUS STIEGLITZ,

Professor of Chemistry.

DEFENDANT'S EXHIBIT No. 47-A.

Memorandum Accompanying Plaintiff's Exhibit No. 47.

NATIONAL RESEARCH COUNCIL
ACTING AS THE
DEPARTMENT OF SCIENCE AND RESEARCH
OF THE
COUNCIL OF NATIONAL DEFENSE

SUB-COMMITTEE ON SYNTHETIC DRUGS
JULIUS STIEGLITZ, CHAIRMAN
UNIVERSITY OF CHICAGO

MEMORANDUM ON THE PATENTS FOR ARSPHENAMINE (SALVARSAN) AND NEO-ARSPHENAMINE (NEO-SALVARSAN) FOR ATTORNEY-GENERAL A. MITCHELL PALMER

According to the estimates of the Public Health Service, based on the examination of young men for army service, there are some ten million people in the United States suffering from syphilitic diseases in some form or other. The Public Health Service has instituted a great campaign to suppress or at any rate decidedly reduce the incidence of this disease, a campaign than which there is no more important movement in this country. One of the implements of much importance in this campaign is the drug arsphenamine (salvarsan or "606") and its derivative neo-arsphenamine (neo-salvarsan). These are the best *curative* agents known for the disease. Used early enough, they will indeed abort the disease and its desperate sequels, and that has been the basis of its very extended use in the army and navy, as I understand it. Even when used in later stages of the disease, it is the most valuable specific remedy known, according to the reports from the most expert and disinterested medical advisors.

Now, arsphenamine and neo-arsphenamine are at the same time *most dangerous drugs*, with very high contents of arsenic, and also most difficult to prepare. Consequently, the *elements of safety and cost* are of peculiar importance in connection with the drugs, and these are factors which I should like to dilate on for your special consideration in the matter of dealing with enemy-owned patents. The solution of the drug is injected directly into the veins of the patient, and most serious reactions, and even death occur in case after case when an impure preparation is used. I believe it would be no breach of confidence to say to you personally that there have been fatalities in the army and navy resulting from the use of the drug, as a result of which indeed I was called in as a special expert in the service of the Public Health Service. In order to safeguard the army, navy, and public, licenses under which arsphenamine is manufactured specify that samples of each lot should be submitted to the Hygienic Laboratory of the Public Health Service in Washington, and should be officially approved before the lot is released for use. In the Hygienic Laboratory of the Public Health Service, the drug is tested biologically as to its activity and purity (by injections into which rats, etc.). My *first* recommendation to you, as custodian of the health interest of the public in this connection, is that in the deed of transfer of the German arsphenamine and neo-arsphenamine patents, the specific condition be entered that the purchasing company and its licensees will submit to the same *regulations for supervision* by the Public Health Service of the manufacture and sale of the product that has been enforced by the Federal Trade Commission with the present licensees. It is quite obvious, I believe, that the public must be protected against the dangers of promiscuous uncontrolled manufacture of

a product, the use of which can cause death in a few moments.

In the second place, we have the question of *cost*, Before 1914 the normal price per dose of 0.6 gram, or 9 grains, for the German article was $3.50. This price was raised to $4.50 in the early years of the war, and when the supply neared exhaustion, such fancy prices as $20 to $80 per dose were paid in this country, a measure of the high esteem in which the drug is held. For your personal information, I would add that when arrangements were being discussed for the issuing of licenses by the Federal Trade Commission, one of the best manufacturing houses interested in securing a license, proposed to market the product at a price of $6.00 per dose! This is a fair indication of what is quite likely to happen in the sale of this vital drug without control of the price by some Government agency. The Federal Trade Commission refused point blank to consider any such proposition as indicated, and finally an agreement was reached that the price should be $1.00 per dose to the Government for the army and navy, $1.25 to hospitals, and $1.50 to individual physicians.

At these prices the product has been manufactured successfully by American licensees, of a degree of purity equal to, and in part greater than, that of the original German article, and in quantities such that in a single month the manufacture equals the importations of a whole year of the German product before 1914.

Now, it is quite obvious that the question of the price is of fundamental importance to the public, especially with about ten percent of the population suffering from the disease for which it is used. It is clear that the campaign of the Public Health Service to suppress the disease would be most seriously han-

dicapped, if not indeed rendered quite futile, if the remedy which destroys the disease germ and thus removes the primary source of infection, were to become too expensive for widest use in hospitals and other stations. Indeed, in my judgment the present price should be in time decidedly reduced ultimately perhaps to $0.75 or $0.50 a dose, when the price of capital, chemicals, and labor are reduced, and processes are put on a firmly established *going* basis in large scale operations.

In view of these facts, I should therefore like to urge upon you my second specific recommendation, namely, that in the transfer of the German patent rights, you insist upon such provisions as you may deem wise which would insure that there should continue to be *control of the price, as well as of the purity of these drugs, by some responsible agency, best by some Government agency.* I should suggest for your consideration control either by the *Federal Trade Commission,* which has already done such excellent work in the public interest in the matter of licenses for the manufacture of these drugs and other articles under enemy-owned patents; or in the control of the *Custodian of Alien Property,* if that office will indeed continue in existence in the years to come, in view of its own splendid record of service to the public; or, finally, in the *control of the Public Health Service,* which has the biological control. All these Government bodies have proved themselves disinterested and most efficient guardians of the interests of the public.

The last question I would bring to your attention is the problem of the proper number of licensees for the manufacture of arsphenamine. Although not in itself as vital a question as the two preceding ones, nevertheless it is in a very important way involved in these two questions.

The manufacture of so *dangerous* drugs as ars-

phenamine and neo-arsphenamine would be, in my judgment, best limited to a very few easily controlled expert manufacturers. The experience of the Public Health Service in controlling the manufacture of antitoxins and serums has shown that unlimited freedom of manufacture makes the scientific control exceedingly difficult and more expensive than it should be. It has also been our experience that the products first put out by present licensees have in most instances been at first of inferior quality and in part dangerous. These difficulties have now been overcome, and safe products are being produced on a large scale, based on going methods. The standard of the Public Health Service has been raised over fifty percent from the original standard adopted, and the products really measure up to one hundred percent better than they did originally. Unlimited licensing would expose the public to the dangers of wide-spread use of untried products. While the best and most reputable physicians no doubt would insist on using the wellknown standardized brands, thousands of less experienced doctors might easily be induced to try new untried brands of manufacturers attempting to force a market for their products.

In the next place, the concentration of manufacture reduces the cost, both overhead and working costs, and also the necessary margin of profit.

My specific recommendation would therefore be that you advise a purchasing holding company that the safety of the public and the public interest in the question of cost make desirable a *limited number of licensees* for the manufacture of arsphenamine and neo-arsphenamine. These should include, in my judgment, present licensees who have not only going methods and safe products, but who have rendered a signal service to the country in producing so important and withal so difficult a product under the condi-

tions obtaining in this country during the war. Such action would also carry out the intentions of the Federal Trade Commission in granting licenses for the duration of the *life* of the patents, which was done in order to stimulate investment of capital in the preparation of these much needed articles. There might well be perhaps two or three further licensees if it is considered desirable to obviate all possibility of anything approaching a monopoly, but the fewer there are, the surer and the more efficient will be the control. Each licensee would be bound to *reduce the cost* to the public, on demand of a central authority, as suggested before, after a public hearing on the reasonableness of the price proposed.

Finally, State Boards of Health should *eo ipso* be allowed licenses for the manufacture and the use of the drugs free of charge in the public service. This plan is now being operated by the Board of Health of the State of Massachusetts, and a similar plan is being developed by the Board of Health of the State of New York.

SUMMARY

I should summarize my recommendations briefly as follows:

In the sale of the German patents controlling the manufacture and use of arsphenamine and neo-arsphenamine (salvarsan and neo-salvarsan) it is urged that the Custodian of Alien Property make the following specific conditions as part of the terms of sale:

(1) That in view of their exceedingly dangerous character, the manufacture and sale of arsphenamine and neo-arsphenamine under license be subject to the *control of their toxicity* by the United States Public Health Service as under present regulation.

(2) That the price per dose be subject to control by some Government department, such as the Federal

Trade Commission, the Alien Property Custodian, or the Public Health Service, and under no conditions be increased beyond the present price of $1.00 per dose, without permission of such Government authority.

(3) That the licenses of present licensees be continued or renewed, and that State Boards of Health be enabled to secure licenses for the manufacture and free use of the product.

(4) That the *number of licenses* for the manufacture of the drugs for public sale *be limited* on account of the unusually dangerous character of the articles and the method of administration by direct introduction into the veins of patients, which gives little opportunity to conteract the effects of a poor preparation.

Signed, respectfully,

(Sgd.) JULIUS STIEGLITZ.
Chairman, Committee on Synthetic Drugs of the National Research Council, and
Special Expert on Arsphenamine of the Public Health Service.

DEFENDANT'S EXHIBIT No. 48.

Book entitled "The German Great Banks and their Concentration," by Dr. J. Riesser, published by National Monetary Commission, Government Printing Office, 1911.

(Not Printed)

DEFENDANT'S EXHIBIT No. 49.

Book entitled "Germany's Commercial Grip on the World—Her Business Methods Explained," by Henri Hauser, a French economist, originally published in French in 1915.

(Not Printed)

DEFENDANT'S EXHIBIT No. 50.

Book entitled, "Science and the Nation." Essays by Cambridge graduates with an introduction by Rt. Hon. Lord Moulton, K. C. B., F. R. S.

(Not Printed)

DEFENDANT'S EXHIBIT No. 51.

Report on Dyestuffs for American Textile and other Industries, by Thomas H. Norton, Commercial Agent of Department of Commerce.

(Not Printed)

DEFENDANT'S EXHIBIT No. 52.

Extract From Hearings Before the Committee on Ways and Means, House of Representatives, on H. R. 2706 and H. R. 6495.

(The following documents referred to by Mr. Garvan in his testimony before the committee, are here printed in full as follows):

PRELIMINARY REPORT ON FARBWERKE-HOECHST CO. OF NEW YORK.

HISTORY.

In 1880 Mr. P. Schulze-Berge, who for a number of years previous to that time had been in the employ of William Pickhardt-Kuttroff Co., established an office in New York for the sale of dyestuffs made by Dahl & Co., of Barmen, Germany.

In 1881 Mr. Herman A. Metz entered the employ of P. Schulze-Berge as an office boy.

In January, 1884, Mr. Victor Koechl became a partner in this business and the name of the firm was changed to Schulze-Berge & Koechl. Previous to entering this partnership Mr. Koechl had been with the firm of Lutz & Movius who were the American agents for the Farbewerke vorm. Meister, Lucius & Bruning of Hochst, Germany.

After a few years Schulze-Berge & Koechl was consolidated with the firm of J. Movius & Son, successors to Lutz & Movius, and the name was changed to Schulze-Berge, Koechl & Movius. The firm continued in business for some years. However, both Mr. Movius and Mr. Schulze-Berge retired from business and after the former's retirement the name was again changed to Schulze-Berge & Koechl.

In 1896 a corporation called Victor Koechl & Co. was organized under the laws of the State of Virginia, with an authorized capital of $500,000, $300,000 common and $200,000 preferred. The following were the officers of the company: President, Victor Koechl; vice president, and treasurer, Herman A. Metz; secretary, Charles Fuehrlein.

At this time all of the stock was owned by Mr. Koechl with the exception of one share each owned by Metz and Fuehrlein as qualifying shares. The firm of Victor Koechl & Co. were the agents in the United

States for the dyestuffs and pharmaceutical products of Farbwerke vorm. Meister, Lucius & Bruning. Mr. Metz had, in addition to his salary, a one-third interest in the profits of the business.

In 1900 business differences arose between Mr. Metz and Mr. Koechl, and Metz thereupon started the organization of the Consolidated Color & Chemical Co., with $50,000 authorized capital. Mr. Koechl, finding that his entire office and sales force was likely to leave him and go with Metz's new company, decided to retire from the business and sold all of his stock to Mr. Metz for $300,000.

Mr. Metz, after acquiring Victor Koechl & Co. proceeded with the establishment of the Consolidated Color & Chemical Co., but it was not a serious factor in the chemical business at that time.

In 1902 a contract was entered into between Herman A. Metz, Victor Koechl & Co., H. A. Metz & Co. (a corporation to be formed at a later date), the Consolidated Color & Chemical Co., together with the Farbwerke vorm. Meister, Lucius & Bruning, whereby the Farbwerke vorm., Meister, Lucius & Bruning, acquired stock in the other corporations in the following proportion: One-fourth of the stock of Victor Koechl & Co., the capital of which was to be reduced from $500,000 to $50,000, of which only $10,000 was to be issued, the balance remaining in the treasury; one-fourth of the stock of H. A. Metz & Co. and one-half of the stock of Consolidated Color & Chemical Co., whose stock was increased from $50,000 to $200,000 (with the exception of four qualifying shares).

All of the holdings of the Farbwerke vorm., Meister, Lucius & Bruning, in the stock of the various companies were to be in Metz's name and indorsed in blank and deposited with a trust company as trustee.

The active business of the company after that time was carried on under the name of H. A. Metz & Co. and the Consolidated Color & Chemical Co., the former

being agents for the dyes and pharmaceutical preparations in this country of Farbwerke vorm., Meister, Lucius & Bruning, and the latter a manufacturing concern producing certain dyes, acids and intermediates in this country.

In 1905 the 1902 contract was amended and Metz transferred 60 additional shares of H. A. Metz & Co. to Farbwerke vorm., Meister, Lucius & Bruning, thus giving them control of 55 per cent. of the stock. Under the same agreement Metz sold to Farbwerke vorm., Meister, Lucius & Bruning 25 more shares of Victor Koechl & Co., thus bringing their interest in this concern up to 50 per cent. of the outstanding capital stock.

The agreement also provided that in case of Metz's death or withdrawal from the active management of the company, Farbwerke vorm., Meister, Lucius & Bruning should have the right to acquire from Metz's estate the remaining 900 shares of H. A. Metz & Co., at the price of $150,000. It also provided that the Consolidated Color & Chemical Co. and Victor Koechl & Co. should at any time at the demand of Farbwerke vorm., Meister, Lucius & Bruning transfer to H. A. Metz & Co. their entire business at book value.

It further provided that, irrespective of the stock ownership, Metz and Farbwerke vorm., Meister, Lucius & Bruning would each receive 50 per cent. of the profits of each corporation, but that Metz would have to pay to certain employees one-half of the profits so received by him. As an offset to this latter provision Metz was also to receive one-fourth of the profits which the Farbwerke vorm., Meister, Lucius & Bruning made on the sale of their products to the three corporations in which they were jointly interested.

This agreement also provided that at any time on the demand of Farbwerke vorm. Meister, Lucius & Bruning the name of H. A. Metz & Co. would be changed to Hoechst Color Co., but that the new com-

pany would in every respect take the place of H. A. Metz & Co.

The 1905 arrangement continued in force until 1912 with no change in either the names, ownership, or amount of the capital stock of the corporations, with the exception that at the end of 1907 a fire having occurred in the Consolidated Color & Chemical Co. plant which entirely wiped it out, and inasmuch as the Farbwerke vorm. Meister, Lucius & Bruning did not care to be interested in an American manufacturing plant, Metz with the proceeds of the insurance money purchased from them their share of the capital stock.

On July 22, 1912, another contract was entered into between Farbwerke vorm. Meister, Lucius & Bruning, H. A. Metz & Co., H. A. Metz, and Victor Koechl & Co., which provided as follows:

1. That the name of H. A. Metz & Co. was to be changed to "Farbwerke-Hoechst Co." of New York.

2. That Metz was to sell to the German company 890 shares of his remaining 900 shares of H. A. Metz & Co. for $150,000, thus giving the German company control of 1,990 shares out of the 2,000; and it was further agreed that all of the stock previously owned by the German company, namely, 1,100 shares which had been standing in the name of Herman A. Metz and which had been indorsed by blank and deposited with the trust company, together with the newly acquired 890 shares, should stand in the name of Farbwerke vorm. Meister, Lucius & Bruning. These were to be deposited with the Guardian Trust Co., subject to the exclusive control and order of the German company.

3. That the remaining 10 shares of stock owned by Metz were to stand in his own name.

4. That the board of directors was to be increased from three to five.

5. Victor Koechl & Co. was to liquidate its affairs

and the pharmaceutical business formerly carried on by Victor Koechl & Co. was to be established as the "pharmaceutical department" of H. A. Metz & Co., including the dealing in the article called "Salvarsan."

6. That separate books were to be kept by H. A. Metz & Co. for its general business and for the pharmaceutical department, and that Metz was to receive for his services as president and general manager of H. A. Metz & Co. 25 per cent. of the net profits earned by the German corporation in its dealings in pharmaceutical products with H. A. Metz & Co., and 25 per cent. of any sum distributed by H. A. Metz & Co. as dividends out of the profits of the pharmaceutical department.

7. That Metz was to be retained and agree to serve as president and general manager of H. A. Metz & Co. until at least the 31st day of December, 1916, the employment to be thereafter renewable for one-year periods unless six months' notice was previously given. As long as Metz remained president and general manager he was to receive one-half of the net profits (except the profits of the pharmaceutical department), which were distributed from time to time as dividends. Out of this 50 per cent., he was to retain 25 per cent. for his own use and to distribute the remaining balance personally to important employees of H. A. Metz & Co. as a bonus in addition to their salaries. The German corporation reserved the right, however, at any time upon written notice to Metz, to change the arrangement and to distribute the 25 per cent. direct to the employees themselves.

7-a. That Metz was given the same presidential powers as before; he was to determine the amount of the dividends and to fix the salaries and bonuses, but he was not to increase the salaries of certain of the important employees or himself without the consent of the German corporation.

8. That the dividends were to be paid to the stockholders of record, but in making the division between Metz and the German corporation the provisions of paragraphs 6 and 7 were to be taken into consideration, namely, that the German corporation was to receive 75 per cent. of the pharmaceutical dividends and 50 per cent. of the dividends from other business operations. Metz was to have no separate claims as to dividends on the 10 shares of the stock of which he was the owner, but was to put his dividends on this 10 shares in with all the other dividends for division between himself and the German house.

9. That in order to make more practicable the payment of dividends and the distribution of the bonuses, and also to carry on its affairs generally, the German corporation gave Metz its power of attorney authorizing him to receive and collect all dividends or other moneys of H. A. Metz & Co. payable to or belonging to the said German corporation, and the German corporation also gave Metz the power of attorney or proxy to enable him to vote in their behalf at any special or annual meeting of the stockholders of H. A. Metz & Co. Neither the power of attorney to receive dividends nor the proxy was revocable as long as Metz continued to be the president and general manager.

10. That Metz or his estate was to receive shares of the profits after employment ceased for the current half year.

11. That H. A. Metz & Co., so long as Metz remained president and general manager, was to have the exclusive sale of the products of the German corporation in the United States of America, and that the German corporation agreed not to sell any of its products directly or indirectly to anyone in the United States of America without the written consent of Metz. The German house also agreed to sell to H. A. Metz & Co. at their lowest market price so as to prevent the

underselling of H. A. Metz & Co. in the United States by any other person or corporation.

12. Metz agreed that, as long as he remained president and general manager, and in any event not until after the 1st day of July, 1917, he would not, without the permission of the German corporation, engage directly or indirectly as principal, agent, employee, partner, or director, or become interested in any way in any other business kindred to that of any of the corporations which were parties to the agreement, nor would he permit the use of his name in any such business except that he might continue his present connection with the Consolidated Color & Chemical Co. as long as the Consolidated Color & Chemical Co. did not compete with the German corporation in products other than those it was manufacturing and dealing in at the time of making the agreement. Metz agreed to furnish a list of the products of the Consolidated Color & Chemical Co. then being manufactured, and agreed further that irrespective of his remaining president this latter provision as to manufacturing by the Consolidated Color & Chemical Co. was to remain in force in any event until January 1, 1917.

13. That Metz as president and general manager was to furnish true copies of the minutes and of certain annual, semiannual, and monthly accounts and reports.

14. The German corporation agreed that if at any time before December 31, 1916, Metz ceased to be president and general manager, certain of the important employees were to be retained until December 31, 1916, on the same basis as prior to Metz's retirement; the employees, however, were to agree with Metz that they would not engage in a competing business for two years after January 1, 1917.

15. Provides the method of giving notice of any change or cancellation of the contract.

16. That as long as paragraph 11 of the agreement remained in force (paragraph 11 refers to the exclusive agency rights of H. A. Metz & Co.) H. A. Metz & Co. were not to buy or sell any products competing with those of the German corporation, without referring such transaction to the German corporation for its approval or disapproval, and H. A. Metz & Co. agreed to send every three months a report of all such competing products dealt in.

17. Provides for arbitration in case of dispute.

18. That this agreement superseded all other agreements.

19. That this agreement was to be binding upon the heirs, personal representatives, and successors of the parties to the agreement.

Under the provisions of the 1912 contract Victor Koechl & Co. was to be dissolved and go out of business. This has not actually been accomplished, as it was necessary for certain legal reasons to keep the corporation in existence. In 1914, however, they voted to reduce the capital stock of $1,000, five shares being in the name of Herman A. Metz and five shares being in his name, but indorsed in blank and deposited with the Guardian Trust Co. These latter shares have since been turned over to the Alien Property Custodian as belonging to the Farbwerke vorm. Meister, Lucius & Bruning.

1913 STOCK TRANSACTIONS.

It is evident from analyzing the aforementioned contract that the German corporation was in complete control of H. A. Metz & Co., whose name was changed to "Farbwerke-Hoechst Co." on September 1, 1912.

It is also evident that the ownership of the stock had no relation to the division of the profits, for it will be noted that the profits were divided in exactly the same manner in the 1902 and 1905 contracts as they

were under the 1912 contract, thus indicating that the ownership of the American concern was of interest only to the Germans as providing the means for perpetuating their American agency. This desire on their part is further indicated by the changing of the name from H. A. Metz & Co. to Farbwerke-Hoechst Co.

Early in 1913 certain antitrust suits known as the "Dobson suits," were started in Pennsylvania against the Farbwerke-Hoechst Co. of New York, Farbwerke vorm. Meister, Lucius & Bruning, and other German dye houses and their American representatives. These suits charged the German concerns with violating the Sherman antitrust law through being in a combination in restraint of trade in Germany and in this country, and also charged the American houses with bribery of employees of the consumers of dyes in America.

At the time of bringing these suits Mr. Metz was a member of the United States Congress, having been elected to office in 1912. He immediately settled the suits against the Farbwerke-Hoechst Co. and Farbwerke vorm. Meister, Lucius & Bruning by the payment of $40,000 and agreeing with the attorneys of the other side to assist them in the prosecution of their suit against his competitors. He also immediately got in touch with the German house and demanded that they sell back to him all of the stock they owned in the Farbwerke-Hoechst Co., Mr. Metz arguing that the continued ownership of the New York corporation by the German corporation could only lead to trouble in the future in the nature of further antitrust suits, well realizing that due to the dye cartels in Germany the ownership of the stock in the American house by the German house would always give sufficient reason for the starting of the antitrust suits.

In connection with the resale of the stock of the New York company by the German corporation to Metz, voluminous correspondence was carried on,

copies of which have been found in the files of Mr. Metz and also in the files of Mr. Hinrichs, the attorney representing the German corporation in the transaction.

As can well be imagined, the German corporation did not agree to Metz's proposition at once, and I am setting out herewith the principal points involved in the correspondence relative to the transaction.

On April 12, 1913, the German corporation wrote to Metz stating that they had decided, after receiving Mr. Metz's letter, to comply with his request. I quote from this letter:

"Conforming to your wish we have decided to deliver up our shares of the Farbwerke-Hoechst Co., and so 992 shares will be transferred to Speyer & Co., New York, 998 shares will be transferred to George Hauck & Sons, Frankfort on the Main."

This arrangement was made through Lazard, Speyer & Ellison in Frankfort on the Main, and they gave Metz full authority to take possession of the stock standing in their name in the Guardian Trust Co. and also full authority to transfer the stock to Speyer & Co. and to George Hauck & Sons. The relations between the German concern and Metz were to be unchanged by the transfer of this stock, and the letter went into other details for the running of the business. Metz was urged to give the Speyer & Co. one of the proposed principal stockholders, no more information than was absolutely necessary. The letter further stated that one-half of the dividends should be retained by Metz and the other one-half turned over to Speyer & Co.

This arrangement was never carried into effect, as Mr. Metz objected by cable, advising that the transfer to the bankers was no solution of the problem. This information is contained in a postscript to the letter of April 12. The postscript further stated the

reasons for the German house desiring to own the stock and have it in their own name; namely, that they feared trouble, in case of Mr. Metz's death, in obtaining possession of the stock, and of the possibility of having to pay inheritance taxes. The letter also urged Metz to find a "trustworthy company in New York which is not a banking house, of which you could avail yourself, to which part of the shares could be transferred without suspicion."

On April 21, 1913, Mr. Hinrichs, writing to the German corporation, stated as follows:

> "It would be wise as a precaution to have the title to all goods sent to the United States from your works pass to the purchaser before leaving Europe. It seems to us that this can be effected and should be effected without delay. Furthermore, if there is any danger that the courts here would hold your combination a violation of the spirit of the American law, and also that you are in effect doing business in the United States by holding stock in the New York corporation of Farbwerke-Hoechst Co. (formerly H. A. Metz & Co.), such stock should at once be transferred to individuals or concerns in no way connected with your own business either by joint ownership of stock or by the cartel arrangement so common abroad, or the American corporation should be reorganized as an entirely independent concern. As a preliminary to this, it might be well to transfer the stock again to Mr. Metz if he is able to buy it; if not, probably you could lend him sufficient to enable him to do so, he securing his indebtedness to you by giving his note secured by all of the stock certificates. . . . We would also advise that the stock certificates should be placed in some trust company in Canada."

On April 22, 1913, the German house wrote to Mr. Metz, again confirming their objection to reselling the stock to Metz, and stating as reasons the question of

inheritance tax. The letter also stated that they did not consider the relations of the German corporation with Metz were in violation of the antitrust act.

On May 8, 1913, the German corporation wrote to Mr. Metz that they had decided to comply with his wishes in reselling the stock to him. Inasmuch as this is a very important letter, I am setting the same out in full.

FARBWERKE VORM. MEISTER, LUCIUS & BRUNING,

HOCHST ON THE MAIN, May 8, 1913.

My Dear Mr. Metz: In accordance with your urgent wish, we declare ourselves ready to sell you the 1,990 shares of Farbwerke-Hoechst stock which we purchased some time past, but only under following conditions:

(1) The purchasing price is $300 for each share; the total, therefore, is $597,000.

(2) We are ready to give you credit for this purchasing price against your promissory note, payable on demand. Furthermore, for our security, these shares must be deposited to our sole disposition in Montreal or in another place to be determined by us, in a bank[1] to be determined by us.

(3) You pledge yourself to return the shares to us for the same price for which we sell them to you today, in case you cease to be president of the Farbwerke-Hoechst Co., on account of death or any other cause. As security for this condition of the retransfer you will already now attest on the certificates the retransfer specification, which is to be canceled again if we should forego our right of repurchasing, as in the case described above.

I beg you to carry out in legal form the preceding conditions with the concurrence of Mr. F. Hin-

[1] At the Bank of Montreal or the Royal Bank of Canada.

richs, to whom I am sending a copy of this letter. Inclosed we send you power of attorney to receive the certificates at the trust company, also our declaration concerning the transfer of our stock of the Farbwerke-Hoechst Co.

With friendly greetings,

Yours, truly,

DR. HAEUSER.

You will note that by paragraph (3) Metz is to pledge himself "to return the shares to us for the same price for which we sell them to you today, in case you cease to be president of the Farbwerke-Hoechst Co., on account of death, *or any other cause.*"

On the same day the German corporation wrote to Mr. Hinrichs, and I beg to quote from this letter. After stating that in their opinion their relations are not in violation of the antitrust law, the letter goes on as follows:

"At the same time we wish to comply with Mr. Metz's desire to reprocure the shares if this is possible without endangering our own interests. Our interests are known to be such as to prevent the shares of the Farbwerke-Hoechst Co. from falling into wrong hands or that the procuring of these shares is made difficult for us in the case of Mr. Metz's dying or retiring from business."

On June 9, 1913, Mr. Hinrichs, writing to the German corporation, stated as follows:

"In your letter of the 24th of May we stated that Mr. Metz promises to submit to our senior the form of note and accompanying letter which he proposed addressing to you. He has not submitted anything to us, but called the other day upon our Mr. Frederick W. Hinrichs and told him that he had obtained the certificates of stock from the trust company, had trans-

ferred them to himself upon the books of the New York corporation, and had deposited such certificates in an envelope, which envelope he had indorsed in substance: 'The property of Farbwerke vorm. Meister, Lucius & Bruning.' "

It is evident from a reading of this correspondence that Metz and Heinrichs were having considerable trouble in adjusting the ownership of this stock in such a way as to protect the German interests. Metz wished the stock merely to be in his name and to have an oral arrangement with the German house. To this Hinrichs would not consent.

On June 20, 1913, the German concern wrote a very important letter to Mr. Hinrichs, which I am quoting in full, as follows:

June 20, 1913.

Messrs. Fred W. and Alfred E. Hinrichs, New York.

Dear Sirs: I received your honored communication of the 9th of this month, which crossed my letter of the same date. I trust that this last reached you in the meantime.

In any case, I cabled you on the 18th of this month—

"Received letter of the ninth; arrange at once for the repurchase and security of the shares."

which I hereby confirm.

The inclosure in your letter we have carefully read and agree entirely with you in the view of the matter. Your point of view concurs substantially also with the views of Mr. Metz. We will do everything to prevent every possibility of a charge, because of a reopening of the affair against the antitrust law.

What now immediately concerns the question of the shares I notified you of our views in my communication of the 9th of June. We have sold the shares

back to Mr. Metz. It is, however, quite conceivable, as you rightly emphasized, that in case of the death of Mr. Metz or in case of his retiring from the business we have the right to repurchase the shares. As Mr. Metz is not in a position to pay us the market price, so the simplest way is that we stand the market price for Mr. Metz and are placed thereby in the position, should this occur, to immediately reimburse ourselves for the full market price by taking possession of the shares, and that we are entitled to have the shares procured in this manner rewritten to our name in the book of stockholders. We ask you again to draw up a note, etc., according to these demands.

We are not of the opinion that it is right and necessary to insure Mr. Metz in this note against our claiming from him, or from his heirs, further payment, instead of declaring ourselves satisfied with the reprocuring of the shares. I mean that Mr. Metz can safely acquiesce to this matter as a trust, even without a legal binding agreement that the Farbwerke will not ask any such payment from him or from his heirs. I consider it better not to take strictly formal agreements in this matter, so that no objection can be made because of this, that the present sale of the shares to Mr. Metz was only a pretended sale (manipulation).

I have no objection if it is arranged by particular agreement that Mr. Metz delivers to us three-fourths of the profits from the pharmacy business, and half of the profits of the other business of the Farbwerke Hoechst Co., partly as interest for the amount of debt incurred by the repurchase of the shares, partly as return favor that we sell our products and also even the patented products to Mr. Metz at an especially reasonable price. The further relations between Mr. Metz and us are to be looked upon as personal trust relations and remain unchanged, as it was erstwhile agreed by us.

Yours, very truly,

DR. HAEUSER.

From an inspection of this letter you will note that Metz is unable to pay the purchase price for this stock, namely, $597,000, and it is the intention of the German house to "stand the market price for Mr. Metz." You will also note that they object to having an agreement to hold Mr. Metz's estate harmless from any deficiency resulting from the market value of the stock being less than the amount loaned in case of Mr. Metz's death.

Their real objection is stated in the following language:

"I consider it better not to make strictly formal agreements in this matter, so that no objection can be made because of this, that the present sale of the shares to Mr. Metz was only a pretended sale."

On July 1, 1913, Mr. Metz, in writing to Mr. Hinrichs in adjusting the details of the transfer of the stock, wrote as follows:

"If in your opinion the absolute control of the stock enabling Hoechst to transfer it to their own name on the books of the company whenever they like is not sufficient power to them to do what they please with the company and make the company do as they please in every way, I will be glad to have your suggestions as to how else that can be brought about."

After considerable correspondence between Mr. Metz, Mr. Hinrichs, and the German house, on July 17, 1913, Messrs. Hinrichs and Metz visited Canada and deposited in the Royal Bank of Canada in Montreal 1,990 shares of stock of Farbwerke-Hoechst Co. of New York made out in the name of Herman A. Metz.

I visited Montreal and was furnished by the Royal Bank of Canada with a copy of the irrevocable stock power which is attached to the 1,990 shares, and also obtained from the bank a copy of the letter in which the bank acknowledges to Farbwerke vorm.

Meister, Lucius and Bruning the receipt of the stock. Copies of the power and receipt are set out in full, viz:

IRREVOCABLE STOCK POWER.

Know all men by these presents, that I, Herman A. Metz, for value received, have bargained, sold, assigned, and transferred and by these presents do bargain, sell, assign, and transfer unto——1,990 shares of the capital stock of the Farbwerke-Hoechst Co., of New York, standing in my name on the books of the said corporation (said shares being represented by certificate No. 21, dated May 23, 1913), and do hereby constitute and appoint——my true and lawful attorney, irrevocable for me and in my name and stead, but to——use, to sell, assign, transfer, and set over all or any part of the said stock, and for that purpose to make and execute all necessary acts of assignment and transfer, and one or more persons to substitute with like full power, hereby ratifying and confirming all that my said attorney or——substitute or substitutes shall lawfully do by virtue thereof.

In witness whereof I have hereunto set my hand and seal the 17th day of July, 1913.

HERMAN A. METZ. [SEAL.]

Sealed and delivered in the presence of—
FRED W. HINRICHS.

THE ROYAL BANK OF CANADA,
Montreal, July 17, 1913.

FARBWERKE VORM. MEISTER, LUCIUS & BRUENING,
Hochst on the Main, Germany.

Re Farbwerke vorm. Meister, Lucius & Bruening's deposit of certificates of stock of Farbwerke-Hoechst Co.

DEAR SIRS: We hereby acknowledge having re-

ceived from you this day, a certificate or certificates of stock, representing and aggregating 1,990 shares of Farbwerke-Hoechst Co. The certificate or certificates is or are to be held by us, subject at all times to the exclusive control and order of Farbwerke vorm. Meister, Lucuis & Bruening, a German corporation, whose principal office is at Hochst on the Main, near Frankfort, Germany. We understand that we are authorized to deliver any or all of said certificates of stock, upon the written order of any two of the directors of said German corporation, whose signatures may now or hereafter be deposited with us.

We hope hereafter to receive a letter direct from you to us, confirming the above arrangement and lodging with us such signatures of your directors as you may desire so to lodge—which letter we shall promptly answer.

Yours, very truly,

MANAGER.

You will note that in the letter from the Royal Bank of Canada nothing is said relative to a note for $597,000, nor do the records of the Royal Bank of Canada show that there is such a note in existence.

I obtained from Mr. Metz's files copy of a letter signed by him and Mr. Hinrichs jointly under date of July 17, 1913, written from Montreal, addressed to Farbwerke vorm. Meister Lucius & Bruening, reading as follows:

RITZ-CARLTON HOTEL,
Montreal, July 17, 1913.

In re Farbwerke vorm. M. L. & B.'s deposit of certificate of stock of Farbwerke-Hoechst Co.

GENTLEMEN: You have just deposited through us in the Royal Bank of Canada here in Montreal the following documents, subject to your exclusive control as stated in No. 3, the receipt of the manager of the bank:

1. Certificate of stock No. 21 for 1,990 shares of Farbwerke-Hoechst Co. (We inclose a copy.)

2. Irrevocable stock power. (We inclose a copy.)

3. Receipt of the manager of the Royal Bank of Canada. (We inclose original.)

4. Promissory note of Herman A. Metz for $597,000. (We inclose original.)

Kindly acknowledge receipt to each of us, and also write direct to the Royal Bank of Canada, ratifying what we have done on your behalf, in accordance with the terms of the said receipt. Please send to each of us a copy of your letter to the bank, and a copy of its answer, when received by you.

We are yours, very truly,

FRED W. HINRICHS.
HERMAN A. METZ.

FARBWERKE VORM. MEISTER, LUCIUS & BRUENING,
Hochst on the Main, Germany.

P. S.—The bank requests that the signatures of your directors which are to be filed with them, should be certified as correct by the Deutsche Bank of Frankfort.

I also obtained from Mr. Metz's files copies of the promissory note which, according to the joint letter of Metz and Hinrichs, was sent to Germany. A copy of this note is set out in full, viz:

NEW YORK, *July 17, 1913.*

On demand, for value received, I promise to pay to the German corporation, Farbwerke vormals Meister, Lucius & Bruning, Hochst on the Main, Germany, at the office of Farbwerke-Hochst Co., in the city of New York (should there be no office, or should the same be closed at the time of the attempted demand, such demand in that case is hereby expressly waived),

$597,000 in lawful money of the United States, having deposited with said corporation as collateral security for the payment of this note the following property on the conditions herein specified, to wit: Nineteen hundred and ninety shares of the capital stock of the Farbwerke-Hochst Co., a New York corporation, the value of which is now $597,000.

The undersigned hereby gives the said German corporation a lien for this note upon said stock; and does hereby authorize said corporation after the nonpayment of this note or any part thereof to sell the whole or any part of said collateral security, upon which said corporation is hereby given a lien, at any brokers' board or at public or private sale, at the option of the said corporation, without advertisement or notice of intention to sell or of the time or place of sale (such advertisement and notice being hereby expressly waived), to apply the proceeds to pay this note; and does hereby agree that at any such sale the said corporation may be a bidder and become a purchaser of any or all of said collateral security, and may hold the same thereafter in its own right absolutely, free from any claim of the undersigned; and does hereby agree that said corporation may transfer this note, and that upon such transfer said corporation may deliver all security held therefor, or any part thereof, to the transferee, who shall thereupon become vested with all the powers and rights therein given to said corporation in respect thereto; and said corporation shall thereafter be forever relieved and fully discharged from any liability or responsibility in the matter.

It is further agreed that if the undersigned shall become insolvent, or make a general assignment for the benefit of creditors, or file a petition in bankruptcy, or if a petition in bankruptcy shall be filed against him, or a receiver shall be appointed of his

property or assets, then this note shall thereupon become due and payable forthwith.

It is further agreed that no delay on the part of the holder hereof, in exercising any rights hereunder, shall operate as a waiver of said rights.

HERMAN A. METZ.

I also obtained from the Royal Bank of Canada copy of the letter dated July 30, 1913, addressed to the bank by Farbwercke vorm. Meister, Lucius & Bruning acknowledging receipt of the bank's letter of July 17, reading as follows:

FARBWERKE VORM. MEISTER, LUCIUS & BRUNING,
Hochst on the Main, July 30, 1913.

To the ROYAL BANK OF CANADA,
Montreal.

Re Farbwerke vorm. Meister, Lucius & Bruning's deposit of certificates of stock of Farbwerke-Hochst Co.

DEAR SIR: We have your letter of the 17th instant and notice that you have received from us the 17th of July, 1913, a certificate or certificates of stock representing and aggregating 1,990 shares of Farbwerke-Hochst Co. The certificate or certificates is or are to be held by you, subject at all times to our exclusive control and order. You are authorized to deliver any or all of said certificates of stock upon written order of any two of our directors. The signatures of those directors we shall lodge with you from time to time.

Yours, very truly,
FARBWERKE VORM. MEISTER, LUCIUS & BRUNING.

You will note that the certificate or certificates of stock are to be held by the Royal Bank of Canada, subject at all times to the exclusive control and order of the German corporation.

I also obtained from the Royal Bank of Canada a letter dated "Hoechst on the Main, August 27, 1913," addressed to the Royal Bank of Canada, in which the German corporation confirms the letter of July 30 and gives the names of the directors of the German house on whose authority the stock could be delivered. A copy of the letter follows:

FARBWERKE VORM. MEISTER, LUCIUS & BRUNING.

Hochst on the Main, August 27, 1913.

The ROYAL BANK OF CANADA, *Montreal.*

DEAR SIR: Confirming our letter of 30th July, we beg to inclose a list showing the names of our present directors, with the desired attestation by the Deutsche Bank, Berlin, and request you to kindly acknowledge the receipt of it.

In case there will be later on a change in our board of directors, we shall let you have in due course a new list of it.

Yours, truly,

FARBWERKE VORM. MEISTER, LUCIUS BRUNING,
HAEUSER-RAQUE.

List of directors, certified by Deutsche Bank: Herbert von Meister, Adolf Haeuser, Conrad Blank, Dr. Adolf L. Raque, Max Erting, Dr. Hermann Reisenegger.

On July 21, 1913, Mr. Hinrichs, in a letter to Farbwerke vorm. Meister, Lucius & Bruning, confirms the action taken in Montreal. One of the paragraphs in this letter is of interest, and I quote therefrom as follows:

"Such letter also informs you that the signing and delivery of the demand note, and the giving of the security for its payment have been completed. The status of the 1,990 shares is provided that the title is complete in Mr. Metz, subject to your lien."

In the same letter he also says:

"I now come to a matter important to you especially. Mr. Metz hopes to receive from you an order upon the Royal Bank of Canada to obtain possession of the stock at any time during the period of his management and presidency of the New York corporation.

"The law upon the subject of collateral securities is simple enough. Possession of the stock certificates by the owner will enable him to give full legal title to any innocent purchaser for value."

Quoting from another portion of this letter:

"The absolutely only safe course to pursue in order to preserve your lien is to maintain your exclusive and unqualified possession and control of the same such as you now have, the Royal Bank of Canada being merely your depository and its possession being your possession."

He says further, in the same letter:

"Another important matter for you to remember is that a demand note (whether an actual demand or not is required prior to suit) is by our law due as soon as made and suit must be brought upon it within six years or a renewal note must be obtained.

"In other words, after six years from the delivery of such a note the same is outlawed in the courts of the State of New York."

It will be noted from this letter that on July 13, 1919, six years after the note was given, Metz's note for $597,000 will be void and that there is, therefore, nothing to stop the Farbwerke vorm. Meister, Lucius & Bruning from exercising their right to take over the stock.

Even though Farbwerke vorm. Meister, Lucius & Bruning was advised by Mr Hinrichs to enter into new contracts with Metz now that the stock transaction had been consummated, I can find that no new contract was ever entered into between these parties and that, therefore, the old contract of 1913 is still in force and binding.

A careful review of the entire stock transaction will indicate to you that the ownership of the stock had no value outside of a legal value in preventing suits under the Sherman antitrust law, and the perpetuation of the agency in this country. Under the 1912 contract the German corporation was entitled to 50 per cent of the profits from the dye end of the business and 75 per per cent of the profits from the pharmaceutical departments. These divisions of profits still continued after Metz became the owner of the stock and, in fact, several of the letters from Farbwerke vorm. Meister, Lucius & Bruning indicate that there will be no change in this situation.

It will also be apparent to you that there was no money involved in the transfer of the stock from the German corporation to Metz, and it must thus be seen that upon the retransfer of the stock to the German corporation no money will change hands.

A study of the contract of 1912 taken together with the stock transfer, shows conclusively that the value of the stock is dependent upon the Farbwerke-Hoechst Co., of New York, continuing to act as the sole agents of the German corporation and, inasmuch as Mr. Metz has started manufacturing on rather a large scale here in this country, the German house can, by giving him six months' notice, cancel the agency and upon presentation of the note, which under these circumstances Metz would naturally refuse to meet, could take over the stock and establish the Ger-

man concern again in New York through other agents, but continuing to use the name of Farbwerke-Hoechst Co. and having possession of all the customers accounts together with the class and quantity of goods used.

TRANSACTIONS AFTER AUGUST 1, 1914.

After the outbreak of the European war considerable trouble was experienced by the German dye importers in this country in getting goods over from Germany. In November, 1914, Mr. Metz went to Europe, visited Hoechst, and while there made arrangements with them that all goods sent to America should be shipped in his name. This would enable the German concern to certify before the American consul that the goods were purchased by an American, and both the German concern and Metz felt sure that by this arrangement the goods would be free from seizure by the British.

The 1912 contract, of course, provided that the German corporation could not sell to anybody other than the Farbwerke-Hoechst Co. without Metz's permission. He, therefore, when he was in Berlin, on his way home, wrote to Farbwerke vorm. Meister, Lucius & Bruning under date of December 4, 1914, as follows:

"Beg to confirm herewith arrangements made between us that I purchase outright, etc., all goods made by you which you may be permitted to export to the United States."

On December 5, 1915, the German corporation wrote to Metz as follows:

"It is agreed that you purchase outright for your own account and risk, etc., all goods made by us which you may be permitted to export to the United States."

This, according to Mr. Metz, was the only arrangement amending the contract of 1912. (See examination of Mr. Metz before Mr. Choate, September 26, 1918, pp. 2 and 3.) The question would natuarlly arise as to the necessity for this arrangement, if Mr. Metz was the bona fide owner of all of the stock of Farbwerke-Hoechst Co. In his testimony before Mr. Choate he explains the reason that the goods were sold to him directly, viz:

"Q. Why was that desirable or necessary if you owned all the stock of Farbwerke-Hoechst?—A. Because the question might be brought up, because the German name might be a barrier and I would have to go to all the trouble of proving it belonged to me."

It would have been, of course, impossible for Mr. Metz to prove the ownership of the stock, as he could not have exhibited the stock certificates, which were in Montreal under the control of the German house.

Accordingly, from that time on all goods were sold to Herman A. Metz personally, and he in turn resold them to Farbwerke-Hoechst Co. of New York upon the arrival of the goods in this country.

In order to keep up the fiction that these goods were being sold to an American citizen Mr. Metz opened a set of books called "H. A. Metz (color account)." At the same time there was opened on the books of the Farbwerke-Hoechst Co. a new account which was also known as the "H. A. Metz color account."

The procedure stated in its simplest terms would be about as follows: The goods would be received in New York consigned to Mr. Metz. Farbwerke-Hoechst would pay for the goods, debiting Metz's color account. Metz would debit his merchandise account and credit Farbwerke-vorm. Meister, Lucius & Bruning. Metz would then turn the goods over to Farbwerke-

Hoechst Co., debiting the Farbwerke-Hoechst and crediting his merchandise account.

At the beginning practically the only goods handled by the Metz color account were the goods received from Germany. Subsequently he bought in this country and in other places and handled them through his color account.

At the beginning the goods were turned over to Farbwerke-Hoechst Co. at actual cost to Metz. As time went along, however, Metz charged a small profit on the goods which were turned over. With the falling off of the shipments from Germany, Metz purchased more and more goods in this country and increased the manufacturing facilities of the Consolidated Color & Chemical Co. None of the profits made on the goods handled through the H. A. Metz color account were turned over to Farbwerke-Hoechst Co., but were retained by Metz as his personal property.

This would seem to be in violation of the 1912 contract, as that contract specifically provides that Metz will not engage in competing lines without Germany's permission.

I am setting out herewith in full three letters received from Farbwerke vorm. Meister, Lucius & Bruning by Metz relative to his activities in the manufacturing line, viz:

[Note: This letter also admitted in evidence as Defendant's Exhibit No. 13.]

[Translation.]

HOCHST ON THE MAIN, *August 5, 1915.*

Confidential.

DEAR MR. METZ: Your friendly letter of the 14th ultimo received and I send my best thanks for your esteemed communication. I am still awaiting the receipt of the revised accounts sent by Mr. Spielhagen.

Regarding the Bethlehem Coal & Iron Co. and

the Deutsche Bank, I have heard nothing, and I can hardly believe that under existing conditions the Deutsche Bank would support any such undertaking to the detriment of the German dyestuff industry.

That Bayer is in back of it, I believe even less, for I know from only recent reports that no German dye factory even considers during the present shortage of chemicals to manufacture anything new over there. Bayer would certainly not undertake, as far as one can see, to take up something new when the few articles (blue, Vesuvin, Bismark brown, fuchsin) have already been delivered by them over there.

We lay great stress upon the fact that you personally will not participate in any manufacturing enterprise.

The present condition can not last much longer. If our successful movement in Russia continues in the same ratio as during the past week, the Russians will finally get war weary and they will then be compelled to sue for a separate peace, which would quickly change the situation.

As soon as normal conditions return, those who took advantage of the present abnormal and uncertain conditions to build up new enterprises will later have to suffer heavily.

I thank you for your interesting report on indigo shipments from China.

With best wishes,

BLANK.

[Note: This letter also admitted in evidence as Defendant's Exhibit No. 14.]

[Translation.]

HOCHST ON THE MAIN, *September 28, 1915.*

Mr. H. A. METZ, *New York.*

From competitive circles we received the infor-

mation that despite the fact that you have no dyestuff factory and are therefore not compelled to further the interests of your dyestuff customers by manufacturing some new product, you have begun the manufacture of tar products in a factory of Prochaska.

We refer to our previous correspondence, and beg you to inform us over here what and where you have, in your name or with your support, begun manufacturing.

Unfortunately, it appears to be true that Bayer's representative over there is viewed by all the factories as being, under the stress of circumstances, a matter of compulsion in manufacturing new products, against the agreement with Elberfeld.

With best wishes,

Yours,

C. BLANK.

[Note: This letter also admitted in evidence as Defendant's Exhibit No. 15.]

[Translation.]

HOCHST ON THE MAIN, *November 12, 1915.*

MR. H. A. METZ, *New York.*

DEAR MR. METZ: Your detailed information, on October 20, per *Oscar II*, thankfully received and carefully noted. We have entered into an agreement with all other German dyestuff factories not to manufacture anything new overseas for the present, either directly or indirectly, and for this reason we are pained at the thought that you should, through your brother, be interested in the Prochaska in the manufacture of the new articles manufactured from orange, echtrot, ponceau, and chrysoidin. We must now await what we should tell the trade if we are again questioned.

With reference to the Consolidated Color & Chemical Co., in which you are interested in an official ca-

pacity, we will eventually give out the information, as you yourself instructed us: "Nothing new, only as before Appreturmittel, gum colors, etc."

You are perfectly right, Messrs. von Bayer over there should not have started anything under the present conditions, if they had acted in unison with your original house in Leverkusen. Because of this Leverkusen is placed in an embarrassing position with the other German dyestuff manufacturers.

The present prospects of sending a new shipment of dyestuffs to New York is unfortunately very slim. Have you heard anything definite and positive as to Klipstein's indigo production and what came out of it?

Dr. Baketel met up with Dr. Ammelburg in Rotterdam. He didn't seem to have accomplished much during his European sojourn. The difficulties were too great.

We are getting along quite well considering the present extraordinary conditions, and trust the same can be said by you.

With friendly greetings,

C. BLANK.

You will note that the letter of August 5, 1915, states, in the fourth paragraph, as follows:

"We lay great stress upon the fact that you *personally* will not participate in any manufacturing enterprise."

Therefore, Metz can not claim, in view of these letters, that he has proceeded with the manufacturing with Germany's approval.

The "Prochaska" mentioned in the letters of September 28 and November 12, 1915, refers to Metz's activities in the Central Dyestuff & Chemical Co., "Prochaska" being the name of two brothers who own 50 per cent of the stock, and other 50 per cent

being under Mr. Metz's control. Whether the profits of this concern should also go to Farbwerke-Hoechst Co. or not is a legal question which must be decided in the light of other things in this report.

The books of the H. A. Metz color account show that the net profits, after the payment of all expenses, were as follows:

Dec. 31, 1915 (which includes the 1914 transactions)	$420,430.80
Dec. 31, 1916	293,257.20
Dec. 31, 1917	27,441.48
Making a total for 4 years to Dec. 31, 1917, of	$741,129.48

In my opinion, all of the amount represented above belongs to Farbwerke-Hoechst Co., to which should be added the taxes for Mr. Metz's personal account which have all been paid out of the Metz color account. There will, of course, have to be an adjustment if this money is to be turned back to the Farbwerke-Hoechst Co., as in that case Mr. Metz would have overpaid his income tax and the Farbwerke-Hoechst Co. would have underpaid theirs. This adjustment has not yet been made and will not be until the ownership of this money is finally determined.

The operations of the Metz color account are further complicated by the fact that in March, 1915, H. A. Metz & Co. (Inc.) was organized. It did not begin active business operations, however, until March, 1916, at which time $40,000 of merchandise was purchased from H. A. Metz and $9,500 in cash was paid in by him in exchange for 495 shares ($49,500) out of the total capitalization of 500 shares. The merchandise which was transferred by Mr. Metz came out of the Metz color account; the $9,500 cash came from the H. A. Metz special account in the American Exchange

National Bank, which was the bank account of the Metz color account; the balance, $500, which was subscribed, was paid out of the same account at the time of the incorporation.

You will see, therefore, if my theory holds good, that the Metz color account was merely another name for the trading account of Farbwerke-Hoechst Co.; that all profits and merchandise on hand belonged to Farbwerke-Hoechst Co.; that these moneys and merchandise thus transferred from Metz color account to H. A. Metz & Co. (Inc.) were in reality transfers from Farbwerke-Hoechst to H. A. Metz & Co. (Inc.)

The exact idea in forming H. A. Metz & Co. (Inc.) and at the same time actively operating the H. A. Metz color account is not clear to me, as they were carrying on exactly the same kinds of business.

There have been no cash dividends paid out of H. A. Metz & Co. (Inc.), but two stock dividends have been declared, one on June 22, 1917 of $100,000, and one on May 28, 1918, of $100,000, thus making the capital stock $250,000. It is my understanding that all of the stock has been indorsed in blank and is in Mr. Metz's possession. I can find no agreement, however, relative to his reason for holding this stock, nor can I say whether the stockholders are mere dummy stockholders for Metz.

On March 6, 1917 the H. A. Metz Laboratories (Inc.) was organized to take over the manufacture of salvarsan and novocain in this country. The original capital stock was $100,000. This company was financed in the following manner:

Twenty-five thousand dollars of the capital stock was issued to Herman A. Metz in consideration of certain property in Brooklyn.

On the remaining stock, 744 shares were issued to Herman A. Metz, 3 shares to Gustav P. Metz and 3 shares to Charles Fuehrlein. All this stock was paid

for by Metz in the following instalments: April 30, 1917, $25,000; June 6, 1917, $5,000; June 16, 1917, $10,000; July 26, 1917, $10,000; September 14, 1917, $10,000; November 13, 1917, $15,000; total, $75,000.

This money came from the H. A. Metz color account, the payment thereof being debited to the Metz personal account on the color books.

If my contention is correct that Metz, under his 1912 contract, could not engage in competing manufacturing, then any profits which may be made from either the H. A. Metz & Co. (Inc.) or from the H. A. Metz Laboratories (Inc.) would belong to the Farbwerke-Hoechst Co.

This idea is further strengthened in my mind by the fact that in 1916 Dr. Gustav P. Metz, a brother of Herman A. Metz, was sent to Hochst to learn how to manufacture salvarsan. He admitted in his testimony before Mr. Choate, that the method of manufacture was communicated to him, but that he was not allowed to take any written notes out of Germany; that he made notes of the process and memorized them, and as soon as he was out of Germany he rewrote them. Dr. Metz was also questioned as to what arrangements were made while he was over there as to the profits from salvarsan manufactured in this country, and he claims there was no discussion on the subject at all. This would tend to strengthen my belief that Farbwerke vorm. Meister, Lucius & Bruning expected to receive their share of the profits from this manufacture.

The original license granted by the Federal Trade Commission for the manufacture of salvarsan was granted to Farbwerke-Hoechst Co. upon Mr. Metz's representation that this was an entirely American-owned corporation. No mention was made by him of the fact that the stock was held as collateral against the loan of $597,000.

The salvarsan was manufactured by H. A. Metz Laboratories (Inc.) and sold to the Farbwerke-Hoechst Co. Finally a second license for the manufacture of salvarsan and novocain was granted to the H. A. Metz Laboratories (Inc.) and they are now engaged in the manufacture and sale of the products direct.

In November, 1918, the trial balance of H. A. Metz Laboratories (Inc.) showed that they were indebted to Farbwerke-Hoechst Co. to the amount of $261,646.70. This large balance is largely made up of open accounts and merchandise which the Farbwerke-Hoechst Co. transferred to the H. A. Metz Laboratories (Inc.) on July 1, 1918. There was no cash passed in the transaction, from the Laboratories Co. to the Farbwerke-Hoechst Co.

Due to these various complications it has been determined that the only possible way to ascertain whether the Farbwerke-Hoechst Co. and, incidentally, the Farbwerke-vorm. Meister, Lucius & Bruening through their lien on Mr. Metz's stock, are entitled to any of the proceeds or to any ownership in the capital stock of H. A. Metz & Co. (Inc.), and the H. A. Metz Laboratories (Inc.), is to establish a combination set of books. This is being proceeded with at the present time and it is hoped to complete the same shortly.

The make-up of this set of books has been an extremely difficult accounting proposition. Mr. Metz personally has kept no books. He has remitted to the other side out of his personal check book for merchandise and also for Germany's share of the dividends. In addition thereto he has paid his personal taxes out of the H. A. Metz color account, and some of the dividends of the Farbwerke-Hoechst Co. have been credited in total to Mr. Metz on the color account,

and others have gone to him personally which he has handled through his own personal check book.

This is only a brief statement of the difficulties which confront us in the making of an accurate and correct statement of the condition of affairs in these companies. As far as we have been able to determine there are approximately 12 bank accounts involved. The bookkeeping methods of all of Mr. Metz's companies have been crude, to say the least, and to add to the complication the absolute lack of system and detail has hampered the work considerably. We are somewhat dependent upon Mr. Metz's personal recollection as to checks drawn three or four years ago, in order to determine what disposition to make of the same.

The following is a copy of the 1912 contract, constantly referred to in this report:

"Agreement made the 22d day of July, 1912, between Farbwerke vorm. Meister, Lucius & Bruening, a corporation organized and existing under the laws of Germany, having its principal place of business at Hochst, near Frankfort on the Main (hereinafter called the German corporation), Herman A. Metz, of the city of New York, H. A. Metz & Co., a corporation organized and existing under the laws of the State of New York, and Victor Koechl & Co., a corporation organized and existing under the laws of West Virginia, witnesseth:

"1. H. A. Metz & Co. has instituted, and shall carry through to completion with all practical dispatch, a proceeding under the statute in such case made and provided for the change of its corporate name from the present name, H. A. Metz & Co., to the name Farbwerke-Hoechst Co. As soon as such change of name shall take place, notice thereof shall be given by said company to all persons having business relations

with H. A. Metz & Co., and the new name shall be employed upon the signs, labels, stationery, goods, and other places and things upon which the name H. A. Metz & Co., has customarily appeared; and said new name shall thenceforth be used to the exclusion of the name H. A. Metz & Co. But it shall be permissible to use in connection with the name Farbwerke-Hoechst Co. the phrase 'formerly H. A. Metz & Co.', or some other phrase of similar tenor; and such phrase shall be used so long and in such form as the German corporation may direct. Whenever in this contract H. A. Metz & Co. is referred to, it shall be understood that Farbwerke-Hoechst Co. is implied, if the context permits.

"2. Immediately upon the execution of this contract the said Herman A. Metz shall sell, assign, transfer, and set over to the said German corporation 890 shares of the capital stock of H. A. Metz & Co., and the said German corporation shall pay to the said Metz therefor the sum of $150,000 in cash in lawful money of the United States. The said German corporation having heretofore acquired 1,100 shares of the said capital stock, which 1,100 shares still stand, however, upon the stock book of the said H. A. Metz & Co. in the name of the said Herman A. Metz and (or) certain employees of H. A. Metz & Co., it is agreed that the said 1,100 shares heretofore acquired and the said 890 shares hereafter to be acquired by the said German corporation shall be forthwith transferred upon the books of H. A. Metz & Co. to the name of the said German corporation. Stock transfer stamps, as required by the laws of the State of New York, shall be duly affixed and canceled, at the expense of the vendor. The certificates of stock for said 1,990 shares issued, and to be issued, pursuant to this agreement to the said German corporation shall be deposited in the Guardian Trust Co. of New York subject to the exclusive control and order of the said German corpora-

tion, and the fees and charges of the Guardian Trust Co. for acting as custodian of said stock certificates shall be paid by the said German corporation.

"3. The remaining 10 shares of the issued and authorized capital stock of H. A. Metz & Co. shall remain the outright property of Herman A. Metz and shall stand in his name upon the books of the corporation.

"4. Proceedings have been instituted, and shall be promptly carried to a conclusion, pursuant to the statute in such case made and provided, for the increase of the number of directors of H. A. Metz & Co. from three (the present number) to five. Such amendments of the by-laws of H. A. Metz & Co. shall be promptly adopted as may be required by reason of the change of name of the company and the consequent change in the legend upon the seal of the company, and said by-laws shall be further amended to provide for the election of the two vice presidents, instead of one as heretofore, and to provide that directors or officers holding over or appointed to fill a vacancy or serve an unexpired term shall be subject to summary removal by the stockholders at any meeting duly called. Thereupon the directors now in office (except the said Metz) and those first appointed to bring the board to its increased membership of five shall, respectively, resign and shall be reappointed to fill the vacancies caused by such resignation; and the officers (except the said Metz) shall in like manner resign and be reappointed to fill the vacancies caused by such resignation.

"5. As soon as may be after the change of name and reorganization of H. A. Metz & Co., as heretofore provided, Victor Koechl & Co. shall liquidate its affairs, go out of business, and become dissolved, in manner following: Said H. A. Metz & Co. shall forthwith institute a new department, to be known as the phar-

maceutical department, which shall take over and continue the business that has heretofore been conducted by Victor Koechl & Co., including dealing in the article known as "salvarsan" and which shall conduct all the future pharmaceutical business of H. A. Metz & Co. The German corporation will transfer its consignment account from Victor Koechl & Co. to said pharmaceutical department. Victor Koechl & Co. will then have no assets except cash and accounts receivable and no liabilities except an indebtedness to the German corporation. Victor Koechl & Co. will do no new business, but will collect said accounts receivable, pay off said indebtedness, and from time to time distribute all of the cash on hand and to be so collected (less necessary expense of collection and less expenses incidental to dissolution as hereinafter provided), one-half to the German corporation (owner of 50 per cent of the capital stock of Victor Koechl & Co.) and one-half to Herman A. Metz (owner of the remaining 50 per cent thereof). When the collection and distribution aforesaid are complete, the certificates of stock of Victor Koechl & Co. shall be surrendered to that company for cancellation, and thereupon the said company shall institute and carry to conclusion appropriate proceedings looking to a dissolution or other termination of its corporate existence. And the said Metz is hereby appointed attorney in fact of the German corporation, with power of substitution and revocation, in the name or on behalf of said corporation, to do and perform any act or thing, and to execute any writing that may be requisite or expedient for carrying out the provisions of this paragraph.

"6. Separate books of account shall be kept by H. A. Metz & Co., one set for the business and transactions of its general business (meaning all of its business except that of its pharmaceutical department) and one set for those of its pharmaceutical depart-

ment; and the German corporation shall keep separate accounts of the pharmaceutical business transacted by it with H. A. Metz & Co. And the said Metz shall receive an account of compensation for his services as president and general manager, as hereinafter provided, 25 per cent of any net profits earned by the said German corporation in its dealings in pharmaceutical products with H. A. Metz & Co., and 25 per cent of any sums distributed as dividends by H. A. Metz & Co. out of the profits of its pharmaceutical department.

"7. Herman A. Metz shall be retained, and agrees to serve as president and general manager of H. A. Metz & Co., at least until the 31st day of December, 1916, and thereafter for one year, in the absence of written notice given at least six months in advance, by the said German corporation to said Metz, or by said Metz to the German corporation, that his term is to end on December 31, 1916. And if not sooner terminated as aforesaid, then after December 31, 1917, the term of said Metz as president and general manager shall continue from year to year in the absence of such notice, given at least six months in advance, that said term shall cease on the 31st day of December then next ensuing. So long as the said Metz remains president and general manager as aforesaid he shall receive one-half of the net profits (except profits of the pharmaceutical department already provided for) that may from time to time be distributed by H. A. Metz & Co. as dividends. Out of the 50 per cent of dividends thus paid to the said Metz he shall retain 25 per cent to his own use on account of his compensation, and shall personally distribute to certain of the other important employees of H. A. Metz & Co. the other 25 per cent as a bonus in addition to salaries. But the said German corporation reserves the right at any time, upon written notice to said Metz, to rearrange the distribution of such dividends, so that

but one-fourth of such dividends thus distributed from time to time as aforesaid shall be paid to the said Metz, on account of his compensation, and so that an amount equal to one-fourth of such dividends shall be divided by the German corporation direct among said other employees. But if the German corporation so undertakes the payment of bonuses to employees at any time before December 31, 1916, it shall continue until such date and out of said amount equal to one-fourth of such dividends, to give to each of the said employees annually the same proportion of such dividends as the said Metz will be giving as of the time when the German corporation itself undertakes the distribution. Such proportion of dividends shall be paid as of the period in which they were earned. The shares of profits and dividends to be paid to the said Metz, as provided for in this and the preceding paragraph, shall be in full of his compensation.

"7a. The powers and duties of said Metz as president and general manager shall be such as he has heretofore enjoyed and performed. He is hereby expressly authorized to determine the amount to be paid from time to time as dividends out of profits; provided that in the future, as in the past, due regard shall be had in declaring dividends to the needs of the business for a surplus in addition to capital to provide sufficient working funds. And he is further expressly authorized (except as hereinbelow provided) to fix all regular salaries and compensation of employees of said H. A. Metz & Co., as well as the expenses of said company generally. Any bonus or premium paid to any of the employees in addition to salary, as hereinabove provided, must continue to be a charge upon the share of the said Metz personally in the profits or dividends, so long as the distribution

of such bonus is left to him, and a charge upon the German corporation if it undertakes such distribution, and is not to be deemed as expense of the business of said H. A. Metz & Co. On the execution of this agreement the said Metz will furnish to the German corporation a schedule of the salaries of the principal employees of said H. A. Metz & Co., and he agrees that he will not increase nor allow to be increased the compensation of Gagnebin, Fuehrlein, Widmann, Hein, or himself, whether by way of salary or by way of bonus, without the consent of the German corporation first obtained.

"8. The dividends of H. A. Metz & Co. shall be paid in the usual manner to the holders of record of its stock; but in making division thereof between the German corporation and Herman A. Metz the entire sum paid as dividends to all stockholders out of the profits of the general business shall be regarded as one amount, and the entire sum so paid out of the profits of the pharmaceutical department shall be regarded as another amount; and said entire sums shall be the bases for calculating the above 50 per cent or the 25 per cent (as the case may be). And the said Metz shall have no separate claim to the dividends on the 10 shares of stock of which he is to remain owner. Those portions of the profits of the pharmaceutical business of the German corporation, and those portions of the dividends of H. A. Metz & Co., out of the profits of its general business and out of the profits of its pharmaceutical department, which are not to be paid to Metz as aforesaid, are to be the property of the German corporation, subject only to the bonuses payable to employees as aforesaid if the German corporation elects to undertake such distribution.

"9. In order that it may be practicable to pay dividends and make distribution of the amount thereof

as above provided and to attend to the necessary details of the business in the United States, the said German corporation will give to the said Metz a power of attorney authorizing him to receive, collect, and give acquittance for all dividends or other moneys of H. A. Metz & Co. (Farbwerke-Hoechst Co.) payable or belonging to the said German corporation, and to deposit and draw against such dividends and moneys. And the said German corporation will also give to the said Metz a power of attorney or proxy to enable him to vote in its behalf at any special or annual meeting of stockholders of the said H. A. Metz & Co. Neither of the said powers of attorney shall be revocable so long as said Metz continues to be president and general manager.

"10. When the said Metz, whether pursuant to notice as aforesaid or by reason of death or resignation by reason of mental or physical incapacity, or for any other reason, except a willful breach of this contract on his part, ceases to be president and general manager as aforesaid, there shall be paid to him or his estate his above-specified proportions of the profits and dividends as above provided for the following periods: If he so ceases at a time on or after January 1 and before July 1, then he or his estate shall receive his above-specified proportions (so far as not already drawn by or paid to him) of the profits and dividends for the six months ending June 30; while if he so ceases at a date on or after July 1 and before January 1, he or his estate shall receive his above-specified proportions of the profits and dividends (so far as not already drawn by or paid to him) for the entire year ending December 31. The total amount of the dividends for any such period shall be in the same proportion to the actual profits of such period as the dividends of the previous year bore to the actual profits of such previous year, un-

less it shall hereafter be agreed that the said German corporation and the said Metz, in supplemental agreement in writing signed by them both that this paragraph shall be otherwise construed.

"11. And the said German corporation agrees that if the obligations under this agreement by the other parties to be performed are faithfully performed by them, the said H. A. Metz & Co., so long as the said Metz remains president and general manager as aforesaid, shall have the exclusive sale of the products of the said German corporation in the United States of America, and the said German corporation during the said term will not, directly or indirectly, sell any of its products to any other person, association, or corporation in the United States of America, without the written consent of the said Metz first obtained; and during the said period it will sell its products to the said H. A. Metz & Co., at their lowest market prices, and will not, directly or indirectly, sell any of its products to any persons, association, or corporation in any part of the world, except to European manufacturers of goods similar to the products of said German corporation, at a lower price or upon more favorable terms than those given to the said H. A. Metz & Co. This paragraph is understood to mean that the German corporation will, as to prices, in no event permit underselling of said H. A. Metz & Co. in the markets of the United States; but in case of extraordinary or special instances, arising in the sale of the products of the German corporation in other countries, when it is necessary to meet special competition in such other countries, the German corporation may, in order to meet such special competition, sell at prices below the 'lowest market price' above referred to, which 'lowest market price' means the general and ordinary lowest market price.

"12 The said Metz agrees that so long as he remains president and general manager as aforesaid, and in any event until the 1st day of January, 1917, he will not, without the written consent of the said German corporation first obtained, directly or indirectly, as principal, agent, employee, partner, or director, engage or become interested in any other business of a nature kindred to that of any of the corporations which are parties to this agreement, nor permit the use of his name in any such business, except that he may continue his present connection with the Consolidated Color & Chemical Co., a New Jersey corporation (in which company, or its stock, said German corporation is no longer interested), so long as said Consolidated Color & Chemical Co., does not compete in other kinds of products than those which it now manufactures and deals in. On the execution of this agreement said Metz shall furnish to said German corporation a list of the products of the Consolidated Color & Chemical Co., which enter into competition with those of any of the corporations which are parties to this agreement; and until said 1st day of January, 1917, the agreement in this paragraph contained shall remain in force even though the said Metz should cease to be president and general manager as aforesaid; but after the last mentioned date the agreement in this paragraph contained shall remain in force only so long as the said Metz shall remain president and general manager as aforesaid.

"13. The said Metz, as president and general manager, will, while he continues in such capacity, within three months next after January 1 and July 1, in each year, render to the said German corporation a full, just, true, and detailed account in writing of the assets and liabilities, profits and losses, earnings and expenses of the general business and (separately) of the pharmaceutical department of said H. A. Metz & Co., as

of January 1 or July 1, as the case may be. For the purpose of the July account the value of assets on hand may be estimated; but account of stock shall be accurately taken for the purpose of the January statement. He further agrees that during each month while he continues in such capacity, he will make a written report to the said German corporation, containing a copy of the minutes of directors' and stockholders' meetings, certified by the secretary or assistant secretary of H. A. Metz & Co., and a general outline of the business of the said company for the month preceding such report; and the said minutes shall be a full and true record of all proceedings of such directors' and stockholders' meetings.

"14. In case for any reason the said Metz ceases before December 31, 1916, to be president and general manager as aforesaid, if Messrs. Gagnebin, Fuehrlein, Widmann, and Hein (who are amongst the important employees referred to in paragraph 7 of this agreement) or either of them, are or is, at the time still in the services of H. A. Metz & Co., the said German corporation will cause their or his employment to be continued by the said H. A. Metz & Co., until December 31, 1916, upon the same terms as to salary, bonus, and duties to be performed, as may be in force at the time between the said employees respectively on the one hand, and the said H. A. Metz & Co. and (or) said Metz on the other hand; upon the condition, however, that each of the employees in question shall at the time agree in writing with his employer and with the German corporation that he will not at any time within two years after January 1, 1917, engage, directly or indirectly, in any competing business.

"15. Any notice to be given by any of the parties to this agreement to any other party, shall be in writing, and may be delivered personally or by registered mail; but if given by registered mail, it must be sent in duplicate, each counterpart being inclosed in a sepa-

rate envelope, one to be mailed on the day of its date, and the other not less than one week nor more than 10 days thereafter. A notice given by mail shall be deemed to have been given on the day of the mailing of the first counterpart. If the length of notice is not otherwise specified by this agreement, 30 days' notice shall be understood. Notice by mail should be addressed as follows:

"H. A. Metz, 122 Hudson Street, New York City.

"Farbwerke vorm. Meister, Lucius & Bruening, Hochst on the Main, Germany.

"H. A. Metz & Co. or Farbwerke-Hoechst Co., 122 Hudson Street, New York City.

"Victor Koechl & Co., 122 Hudson Street, New York City.

"16. So long as paragraph 11 of this agreement remains in force, the said H. A. Metz & Co. agrees not to buy or sell any products competing with those of the said German corporation, without referring each such transaction to the German corporation for its approval or disapproval. And said H. A. Metz & Co. agrees to send a report every three months to the German corporation of all such competing products purchased, whether with or without its permission, and to deliver samples of said products to the German corporation, if it shall so desire, and furthermore to send to the German corporation as often as it may so demand, a statement of the stock in trade on hand, and to give to the German corporation weekly, when requested, a statement of all goods and wares delivered, with the prices.

"17. Should any dispute arise between or among the parties to this agreement, under or concerning the terms thereof, such dispute shall be submitted to three arbitrators, of whom one shall be appointed by the said German corporation, its legal representatives or successors; one shall be appointed by the said Metz, or his legal representatives, and the third shall be ap-

pointed by the two thus chosen. And the award or determination of any two of the said three arbitrators shall be binding and conclusive upon all of the parties to this agreement.

"18. This agreement merges and supersedes all previous agreements between the parties in relation to the same subject matter, and especially the written agreement, dated November 12, 1902, between the said German corporation, Herman A. Metz, Victor Koechl & Co. and Consolidated Color & Chemical Co., also the written agreement signed and acknowledged by Herman A. Metz, in the presence of Charles Edgar Mills, on February 4, 1903; also the written agreement dated August 4, 1905, between the said German corporation, Herman A. Metz, Victor Koechl & Co., the Consolidated Color & Chemical Co., and H. A. Metz & Co., also a supplement or postscript subscribed by the said German corporation, and dated the 18th day of August, 1909.

"19. This agreement shall bind and accrue to the benefit of the several parties, and their respective heirs, personal representatives and successors.

"In witness whereof, the parties hereto have severally executed this instrument, the day and year first above written.

"FARBWERKE VORM. MEISTER, LUCIUS & BRUNING.

"In presence of—

"JOSEPH FLOED.

"By HERBERT v. MEISTER, *Director.* [Seal.]

"In presence of—

"CHAS. FUEHRLEIN.

"By ADOLF HAEUSER, *Director.* [Seal.]

"H. A. METZ & Co.

Attest: "H. A. METZ, *President.*

"A. H. HEIN, *Secretary.* [Seal.]

"VICTOR KOECHL & Co.

Attest: "H. A. METZ, *President.*

"CHAS. FUEHRLEIN, *Secretary.*" [Seal.]

UNITED STATES CONSULATE AT FRANKFORT ON THE MAIN,

Empire of Germany, ss.:

On this 1st day of August, 1912, before me personally came Herbert von Meister and Adolf Haeuser, to me personally known and known to me to be two of the directors of Farbwerke vorm. Meister, Lucius & Bruening, one of the corporations described in, and which, by the said directors, executed the foregoing agreement; and they severally acknowledged to me that they executed the same as the act and deed of said corporation.

[Seal.] WM. DAWSON, JR.,
Vice and Deputy Consul General.

No. 799. Fee $2 received (equal to marks 8.50).

STATE OF NEW YORK,
THE CITY AND COUNTY OF NEW YORK, } ss.:

On this 22d day of July, 1912, before me personally came Albert H. Hein, assistant secretary of H. A. Metz & Co., with whom I am personally acquainted, who being by me duly sworn, said that he resided in the city of South Orange, N. J., that he was the assistant secretary of H. A. Metz & Co.; that he knew the corporate seal of the said company; that the seal affixed to the above instrument was such corporate seal; that it was so affixed by order of the board of directors of the said company, and that he signed his name thereto by the like order as assistant secretary of the said company. And the said Albert H. Hein further said that he was acquainted with Herman A. Metz, and knew him to be the president of said company, that the signature of the said Herman A. Metz, subscribed to the said instrument, was in the genuine handwriting of the said Herman A. Metz,

and was thereto subscribed by the like order of the said board of directors, and in the presence of him, the said Albert H. Hein.

[Seal.] JACOB R. ROETHER,
Notary Public, Kings County.

Certificate filed in New York County.

STATE OF NEW YORK,
THE CITY AND COUNTY OF NEW YORK, } *ss.:*

On this 22d day of July, 1912, before me personally came Charles Fuehrlein, treasurer of Victor Koechl & Co., with whom I am personally acquainted, who being by me duly sworn, said that he resided in the city of Jersey City, N. J., that he was the treasurer of Victor Koechl & Co.; that he knew the corporate seal of the said company; that the seal affixed to the above instrument was such corporate seal; that it was so affixed by order of the board of directors of the said company; and that he signed his name thereto by the like order as treasurer of the said company. And that said Charles Fuehrlein further said that he was acquainted with Herman A. Metz, and knew him to be the president of said company; that the signature of the said Herman A. Metz subscribed to the said instrument, was in the genuine handwriting of the said Herman A. Metz, and was thereto subscribed by the like order of the said board of directors, and in the presence of him, the said Charles Fuehrlein.

[Seal.] JACOB R. ROETHER,
Notary Public, Kings County.

Certificate filed in New York County.

STATE OF NEW YORK,
THE CITY AND COUNTY OF NEW YORK, } *ss.:*

On this 22d day of July, 1912, before me personally came Herman A. Metz, to me known, and known to me to be the individual described in, and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same.

[Seal.] JACOB R. ROETHER,
Notary Public, Kings County.

Certificate filed in New York County.

(Indorsement.)

"Agreement between Farbwerke vorm. Meister, Lucius & Bruening, Herman A. Metz, Herman A. Metz & Co., and Victor Koechl & Co.

"Fred W. and Alfred E. Hinrichs, attorneys at law, 75 William Street, Manhattan, New York City."

MR. METZ'S ACCOUNTS WITH FARBWERKE VORM. MEISTER, LUCIUS & BRUENING.

Mr. Metz has stated that he does not know exactly how his account stands with Farbwerke vorm. Meister, Lucius & Bruening, nor does he know positively if he will have to give them a share of the profits from the Farbwerke-Hoechst Co. dividends declared after April, 1917. He claims that his contract with them expired January 1, 1917, but says that he will turn over to them their share of the profits, provided they will turn over to him certain profits, which he claims they have made on the other side, together with the amount they owe him for moneys remitted by him for anticipated shipments.

I have made a rough calculation of the status of Metz's accounts, both as to dividends declared before

the United States went into the war, and considering the dividends accumulated since that time.

Considering first the statement of accounts up to the time when we went into the war: After applying all the moneys sent over there as direct dividend remittances or as anticipated shipments, and after allowing him deductions for certain moneys known in the dye trade as graft and called by Farbwerke vorm. Meister, Lucius & Bruening extras, but without any allowance to Mr. Metz for possible profits due to him on the other side, it has been determined that Metz is owed by the German house $84,600.72.

If, however, the dividends are taken into consideration since we have gone into the war, Metz is indebted to the German corporation in the amount of $370,399.28.

The set of books which we are preparing and which has been mentioned previously, will establish these figures more accurately.

SURPLUS.

There is another matter which can only be disposed of when the set of books which we are establishing is finally made up and the matter of ownership in the H. A. Metz color account finally determined; that is, the ownership of the surplus accumulated in the Farbwerke-Hoechst Co.

In 1912 Mr. Hinrichs, writing to Farbwerke vorm. Meister, Lucius & Bruening, and after the establishment of the 1912 contract, states as follows:

"Perhaps the most important of the matters of which we had no instructions from you is that of ultimate division of surplus profits of H. A. Metz & Co. (Farbwerke-Hoechst Co.) not distributed from time to time as dividends. The provisions in this regard as we have written them after consultation with Mr. Metz seem to us reasonable, inasmuch as Mr. Metz is re-

selling his stock at a price fixed years ago and not at a price which represents its present book value. We have expressly provided that none of the employees named, except Mr. Metz, shall share in such surplus profits. Mr. Metz thinks that they should and tells us that he has made a marginal note to that effect in a copy of the proposed agreement which he has already forwarded to you."

On June 30, 1918, the undivided profits of the Farbwerke-Hoecht Co. were $232,755.65. This, of course, includes the debit balance of amounts due from the H. A. Metz Laboratories (Inc.).

EXTRAS ACCOUNT (GRAFT).

As previously stated in this report, in 1912 and 1913 certain antitrust suits were started against the Farbwerke-Hoecht Co. and Farbwerke vorm. Meister, Lucius & Bruening et al. alleging the payment of bribes to employees of consumers. That this state of affairs actually existed is beyond question; and that it continued for a number of years after 1912, as far as the Farbwerke-Hoechst Co. is concerned, would also seem to be evidenced by certain letters which we have found in Mr. Metz's files.

On April 12, 1913, in one of the letters from Farbwerke vorm. Meister, Lucius & Bruening to Metz relative to the handling of the stock, the following paragraph appears:

"In order to make it possible for you to have the necessary money for particular expenses at your command, we declare ourselves ready, to remit an adequate amount to any bank account that you will indicate to us, in your favor, so that in this respect also, actually nothing has been changed in the whole state of affairs."

On July 31, 1913, the following letter was received by Mr. Metz from the German house:

[Note: This letter also admitted in evidence as Defendant's Exhibit No. 17.]

(Translation.)

FARBWERKE VORM. MEISTER, LUCIUS & BRUENING,

Hochst on the Main, July 31, 1913.

My Dear Mr. Metz: I confirm my letters of the 11th and 24th of this month, and received in the meantime your communications of the 16th and 22d of this month. Furthermore I acknowledge your and Mr. Hinrichs's letter to the firm regarding the deposit of the certificates in Montreal. According to this it appears that the affair of the shares progresses in proper order so far, and I share your opinion that it is probably better to refrain from further agreements. Hinrichs's letter of the 21st of this month, which you mention in your last communication, has not yet arrived here.

As for what concerns the paying of the dyers, I inform you confidentially about the development of matters as follows:

The proper assistance has been explained to the Elberfeld gentlemen, at the establishment of the new business over there, that they must unconditionally avoid in the future any graft, else the matter may become very bad for them. Elberfeld has then, the comprehensible endeavor, that not they alone, but also all other firms, should cease payments to dyers in future. They immediately came to an understanding on this score with Ludwigshafen and Berlin, and then also secured the consent of Cassella. After these four firms were agreed, there remained nothing for us to do, but to agree likewise, as Kalle had also to consent. It is also to be expected that still other factories will join, at all events all the factories have been asked to join (the Swiss, the English, a Poirrier) and if they refuse to join this shall be used against them among the customers. The purpose of the union is that every

dealer (and as dealer the Farbwerke-Hoechst Co. is regarded just the same as B. Klipstein) is requested by means of the copy of the enclosed letter, to sign the likewise enclosed bond. Aside from the fact, that we were in a forced position, we had little cause to hesitate, as you wrote to me repeatedly, that the payments to the dyers must unconditionally stop.

We are of the opinion that it must be serious, at least for the six firms concerned, to discontinue all affairs with the dyers in the future, and we are furthermore of the opinion that the business will get along very well without the payments to the dyers, since substantially all large firms share the same point of view. A certain transition period is very likely necessary, and therefore the union should first go into effect on January 1 of next year. It will not be feasible then any more that you set expenses in the bill; you will have to arrange to get along without the expenses.

Your independence, as far as it is concerned, will not be affected by this agreement, and at all events, no one, even in America, will wish to reproach us for an agreement whose purpose it is to further the discontinuance of unlawful acts, on the part of our customers.

If you wish to come over here this year yet, which would please me very much, I would ask you not to arrive here in October, as I must go on my vacation in that month after having endured it here the whole summer long.

In case Mr. George Gordon Battle should come here, I will receive him with pleasure.

With best greetings,

Yours, respectfully,

DR. HAEUSER.

This letter would seem to indicate that the payment of graft to the employees of consumers would

cease on January 1, 1914. But that this proposed discontinuance of the payment of graft to the dyehouse employees was not carried through is shown by the following excerpt from a letter received by Mr. Metz from the German house dated February 6, 1914:

"Now as far as extras are concerned, I hear with regret that according to your opinion not much will be changed. I agree with you that you will not be able with one stroke to wipe out all extras but the striving must be to abolish this unwholesome condition entirely. The propositions that you now make seem to me to indicate a practical way in this direction, and we are satisfied therewith. You would accordingly in future as profits only bring to distribution that which really has been earned, and accordingly deduct as business expenses in the manner agreed the shares of the gentlemen who participate in the profits. According to this Gagnebin and Widmann would receive each 2½ per cent of the entire turnover and Fuehrlein 1 per cent of the entire turnover, while Elmore would receive 5 per cent of the turnover of the Providence office as commission. Your salary would be increased from $15,000 to $30,000. Of course it is naturally to be borne in mind that as the extras are eliminated these amounts would be shortened in future."

From another letter received by Metz from the Farbwerke vorm. Meister, Lucius & Bruening dated March 30, 1914, I quote as follows:

"So far as extras are concerned, I am of the opinion that this practice amounts to simply a transition period and that same will rapidly go backward. At any rate all of our endeavors must be in this direction.

"Your idea that the paying out of extras in future can be done through a third party in cash, as, for instance, through your carpet mill at Worcester, I do not find sound. You give yourself through this into

the hands of such third party, who could at any moment turn against you. To me it seems the idea of increasing the provisions (commissions) of Gagnebin, Widmann, etc., much more right. Perhaps it would be possible to adopt a mixed system between raising the commission for Widmann and your former procedure."

PATENTS.

The patents owned on this side by the Farbwerke vorm. Meister, Lucius & Bruening, I understand, have already been reported by Mr. Metz and turned over to Mr. Hoguet of your department.

This is only a preliminary report, and, as stated, as soon as the accounts are made up and the meaning of all the various letters referring to accounts and transactions can be allocated to their proper places, it will then be possible for me to give you a more comprehensive report on this situation.

Respectfully submitted,

LEE J. WOLFE.

DEFENDANT'S EXHIBIT No. 53.

SUPPLEMENTARY AND FINAL REPORT ON FARBWERKE-HOECHST CO., OF NEW YORK.

The following is a supplementary report on Farbwerke-Hoechst Co., of New York, and Mr. Metz's other companies:

The situation on the Farbwerke-Hoechst Co. is unchanged, and after an examination of the books and records of this company, I am setting out in full a trial balance of the Farbwerke-Hoechst Co. at the close of business December 31, 1918:

Trial Balance.

	Dr.		
Cash account	$1,597.95	Capital stock account	$200,000.00
Merchandise account	129,502.81	Profit and loss account	187,389.13
Securities account	141,900.00	Unpaid bills account	7,988.68
H. A. Metz Laboratories (Inc.)	122,377.05		
	395,377.81		395,377.81

You will notice that there is an item of $122,377.05 due by the H. A. Metz Laboratories (Inc.), to this company, which is the only item due this company by any firm or person. It is therefore recommended that this item be collected as soon as possible.

A further examination has been made of Mr. Metz's personal check books, the H. A. Metz color account, the H. A. Metz Laboratories (Inc.), and H. A. Metz & Co. (Inc.). From an accounting point of view there is nothing to indicate that the H. A. Metz color account, the H. A. Metz Laboratories (Inc.), and H. A. Metz & Co. (Inc.) are in any way owned by the Farbwerke-vorm., Meister, Lucius & Bruening, of Hoechst a/Main, Germany, or by the Farbwerke-Hoechst Co. of New York.

This decision is arrived at from the fact that these three businesses were started by money belonging to Mr. Metz personally or by merchandise and fixtures belonging to Mr. Metz personally.

An audit of Mr. Metz's personal books from January 1, 1912, to December 31, 1918, has been made with a view to determine whether any money belonging to Farbwerke vorm. Meister, Lucius & Bruening was in his possession. In arriving at this I have credited

Farbwerke vorm. Meister, Lucius & Bruening, in accordance with the 1912 contract, with their percentage of dividends of the Farbwerke-Hoechst Co., the Farbwerke-Hoechst Pharmaceutical Department, and Victor Koechl & Co. I have charged them with remittances made by Mr. Metz to them in settlement of these dividends, and also have charged them with items deducted by Mr. Metz, known as "extras" account. I have not charged this account for "extras" for 1912, as I had no records to guide me as to how much should be charged. Therefore, the first charge on this account is made in 1914 for "extras" applicable to 1913.

After making these entries I find that on April 6, 1917, there was due Mr. Metz by Farbwerke vorm. Meister, Lucius & Bruening $222,776.75. By giving Farbwerke vorm. Meister, Lucius & Bruening credit for their proportion of dividends earned since we went to war with Germany, and by charging them with "extras" account for 1916 and 1917, it appears that Mr. Metz owes Farbwerke vorm. Meister, Lucius & Bruening $35,696.33.

As against this, however, in the H. A. Metz color account ledger there is due Mr. Metz by Farbwerke vorm. Meister, Lucius & Bruening, in three accounts, as follows:

Special account	$89,403.23
Indigo account	115.78
Allizarine account	2,997.21
Total	$92,516.22
Deducting from this amount the amount shown due him personally to Germany	35,696.33
Leaves a net balance due to Mr. Metz of	$56,819.89

This statement does not include deductions for Germany's share of taxes paid by Mr. Metz, nor is

allowance made for Mr. Metz's share of profits due from Germany for 1915 and 1916. As the detailed statement covering this is long and complicated, I am not setting it forth in this report, but it is available for you at any time.

To arrive at all of these figures I have opened a set of books which has consolidated the Farbwerke-Hoechst Co., H. A. Metz & Co. (Inc.), H. A. Metz Laboratories (Inc.), and H. A. Metz color account. This set of books is not completed, for the reason that the books of H. A. Metz Laboratories (Inc.) and H. A. Metz & Co. (Inc.) have not been closed for December, 1918.

I have also opened a set of books for Mr. Metz personally, which has been built up from his check books and by other records furnished us by Mr. Metz.

I have not attempted to go into the history of Farbwerke-Hoechst Co. of New York, and allied companies, inasmuch as this was all covered in my previous report, nor have I gone into the legal aspect of the contract of 1912, as affecting Metz's right to do business in his own name, as this is a matter which can only be determined by your legal department.

Respectfully submitted,

LEE J. WOLFE.

February 13, 1919.

DEFENDANT'S EXHIBIT No. 54.

REPORT ON KUTTROFF, PICKHARDT & CO. (INC.).

January 11, 1919.

HON. FRANCIS P. GARVAN,

Director Bureau of Investigation, Alien Property Custodian,

New York City.

Dear Sir: On the following pages will be found

the final report on the Badische Co., of New York, the Badische Anilin & Soda Fabrik, of Ludwigshafen, and Kuttruff, Pickhardt & Co. (Inc.), of New York. Throughout this report "Badische" will mean the Badische Co., of New York; "Ludwigshafen" will mean the Badische Anilin & Soda Fabrik, of Ludwigshafen.

Mr. Adolf Kuttroff, the president of the company, has been examined by Mr. Joseph H. Choate, Jr., and by yourself at various times and this final report will be divided into two parts: First, admissions by Mr. Kuttroff or his employees in their depositions before Mr. Choate and yourself, and facts as developed from their books and records; second, new discoveries since the examination of December 30, 1918.

In 1878 the firm of William Pickhardt & Kuttroff took as a special partner Ludwigshafen, and Ludwigshafen advanced $50,000 out of a total capital of $150,000. (Mr. Garvan's examination, Dec. 30, 1918, p. 2.)

After the formation of the firm of Kuttroff, Pickhardt & Co. (Inc.) Ludwigshafen had an interest in the profits, Mr. Kuttroff stating that the profits going to Ludwigshafen were 28 per cent. The ledgers, however, from 1900 to 1903 show that Ludwigshafen's profits were as follows: 1900, 73 per cent; 1901, 71 per cent; 1902, 71 per cent; 1903, 70 per cent. (Mr. Garvan's examination Dec. 30, pp. 2, 3, 4, and 5.) The ledgers for 1904, 1905, and 1906 of the Kuttroff, Pickhardt & Co. (Inc.) are missing. Mr. Kuttroff can give no explanation of where they are. (Mr. Garvan's examination, p. 5.)

The books of the Continental Color & Chemical Co. are missing. These books would be of considerable importance to us in establishing the ownership

of the Badische Co. stock. (Mr. Garvan's examination, p. 5.)

The Badische Co., of New York, was organized in 1907, and took over the business of the Continental as far as it referred to Ludwigshafen. (Mr. Garvan's examination, p. 7.)

Original capital stock of the Badische Co. was $25,000, which, according to the entries made on the books, was paid for with furniture and fixtures of the Continental Color & Chemical Co. (Mr. Garvan's examination, p. 8.)

Stock issued in the Badische Co. to Mr. Kuttroff and Mr. Pickhardt and three or four other small stockholders. No evidence to show that Kuttroff or Pickhardt paid cash for the furniture and fixtures which were used to pay for the Badische Co. stock. Mr. Kuttroff was unable to explain what the entries on the books mean. (Mr. Garvan's examination, pp. 8, 9, 10, and 11.)

Mr. Kuttroff claims that he paid cash for 240 shares of stock. The stock records at the opening of the books of the company in 1907 show that 242 shares stood in his name and 2 shares stood in the name of Carl Pickhardt; the balance was distributed among small stockholders.

Among the October entries in the journal of the Badische Co. are the following:

Debit cash	$25,000.00	Credit capital	$25,000.00
Debit furniture and fixtures	25,000.00	Credit cash	25,000.00
Debit cash	91,104.60	Credit Badische Co. account	91,104.60

An inspection of the cash book of the company does not disclose that any cash was received or money disbursed covering the first four entries above. An inspection of the deposit portion of the check stub book,

however, for that period would show that on October 1, 1907, there were three amounts received from the Continental Color & Chemical Co., one for $25,000 and two aggregating $66,104.60, making a total of $91,104.60, which appears on the cash book as the receipts for that day, and which agrees with the entries as above stated.

The capital account in the ledger shows on that day a credit entry reading as follows: October 1, 1907, by cash account, $25,000.

No cash, however, is shown on the cash book covering this entry The entire amount of $91,104.60, which was the actual cash received that day, passed to the credit of the Badische Co. account on their own books. The entry appearing on the Badische Co. account under date of October 1, 1907, reads as follows:

By cash account	$91,104.60

On the same day in the same account the following credit entries also appear:

By business expense account	$1,542.65
By sales account	281,554.19
By suspense account	1,797.71
	375,999.15

These were the entries whereby the Badische Co. took over the expense account, the cash account, the sales account, and the suspense account from the Continental Color & Chemical Co. to this amount. Whether these were the total amounts or not we do not know as the Continental's books, as stated before, are missing.

On the same day, namely, October 1, 1907, this account was debited with the following entries:

To balance Continental Color & Chemical Co. account	$374,589.64
To Badische Anilin & Soda Fabrik, old account	1,409.51
	375,999.15

The item of $1,409.51 is of no importance and is merely stated in order to show the balance of the account. The first debit entry above, namely, $374,589.64, was offset by a credit entry in the Badische Anilin & Soda Fabrik account for the same amount. It will thus be seen that all of the entries represented by the original credits of $375,999.15 passed to the credit of Ludwigshafen, with the exception of $1,409.51.

It is well to call your attention also to the fact that the debit entry on the Badische Co. account which reads, "To balance C. C. C. Co. account" is not a correct entry, as we can find no Continental Color & Chemical Co. account on the ledger nor any account which would correspond to these entries nor any account showing this amount other than the Badische Anilin & Soda Fabrik account mentioned above.

It is also well to call your attention to the fact that it is not a usual thing for a company to open an account with itself on its own books, and I therefore believe that the Badische Co. account in the Badische ledger was merely opened up in order to camouflage the opening entries so as not to show a direct credit to Ludwigshafen on the Badische Co.'s books.

To my mind these entries indicate that the Continental Color & Chemical Co. was owned by Ludwigshafen, other than the interest of the Bayer Co., and therefore in the absence of any evidence of purchase by Mr. Kuttroff of the furniture and fixtures

the furniture and fixtures must have belonged to Ludwigshafen.

On December 22, 1909, the payment side of the Badische Co.'s cash book has the following entry: "Check to order Mr. Adolf Kuttroff for loan to Mr. Adolf Kuttroff against 240 shares Badische Co. stock as collateral. Check No. 6453, $24,000." The offsetting account on the ledger to this entry was the Adolf Kuttroff loan account, which was debited.

On December 22, 1909, the cash receipt book shows the following entry: "Check Mr Adolf Kuttroff for 240 shares Badische Co. stock, $24,000." This $24,000 was credited to the Badische Anilin & Soda Fabrik stock account.

The entries referred to on the ledger are made under date of December 31, 1909, while the cash-book entries are under date of December 22. This difference is explained by the fact that the cash book is journalized at the end of each month and the entries passed to the ledger from the journal under the date of journalization. Thus, at the close of the year, the loan account of Adolf Kuttroff stood debited with $24,000 and the Badische Anilin & Soda Fabrik stock account stood credited with $24,000, indicating the ownership of 240 shares of stock at that time by Ludwigshafen.

On January 1, 1910, by means of a journal entry the Badische Anilin & Soda Fabrik stock account was debited with $34,000 and Badische Anilin & Soda Fabrik regular account was credited with $24,000. On the same day the Adolf Kuttroff loan account was credited and the Badische Anilin & Soda Fabrik regular account was debited, thus Ludwigshafen paid off the Adolf Kuttroff loan by acquiring the stock although the stock still stood in the name of Kuttroff. It must be remembered in this connection that when the money was loaned to Kuttroff his loan account

was debited. When he paid cash for the 240 shares of stock of the Badische Anilin & Soda Fabrik stock account was credited, and when the entire transaction was cleaned up no cash passed in the transaction either way.

You will note from the foregoing entries that this is the first money which has been paid for the Badische Co. stock; the $25,000 which was previously paid for the stock was represented by furniture and fixtures. The $25,000 cash which was paid in at the time of organization as previously explained went to the credit of Ludwigshafen, the net result of the transaction being that $24,000 of Ludwigshafen's money which was in the Continental was finally in 1910 paid out for the Badische Co. stock.

Mr. Kuttroff, in reply to questions put to him on December 30 relative to these transactions, answered as follows:

"Q. Can you give any explanation of that?

"A. All I can say is the Badische Co. never owned one share of the stock, never bought or paid for anything.

"Q. Can you tell who else paid for any?

"A. I don't know.

"Q. Can you show us where anyone else paid for it?

"A. I don't understand those entries.

"Q. Can you show us where you yourself paid any?

"A. I would have to look that up; I don't know anything about those entries."

It must be remembered in this connection that this information was not sprung on Mr. Kuttroff in the nature of a surprise at the examination that day. The entries, as soon as we discovered them, were pointed out to Mr. Kuttroff and his attorneys, and

they had at least a month to give an explanation of those entries if any was possible.

To further show the control of Ludwigshafen over the Badische Co., your attention is called to the fact that from the organization of the company until June 30, 1913, the Badische Co. received its goods on a consignment basis. From 1907 to 1910, all expenses were paid by Ludwigshafen. After 1910, the expenses were paid by the Badische Co. direct, but during the years 1910, 1911, 1912, and the first six months of 1913, $414,000 of the expenses incurred by the Badische were borne by Ludwigshafen. (See pp. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30, Mr. Garvan's examination Dec. 30, 1918.) These pages will also give you the reason for the change in 1910 from a branch house basis to an agency basis.

During the years 1912 and 1913 certain suits were started against the German dye houses alleging bribery of dye consumers' employees and the existence of a trust among the German dye houses to control prices in violation of the Sherman antitrust act. It will be remembered that up to June 30, 1913, the Badische Co. acted merely as the consignee of Ludwigshafen's goods. Due to these antitrust suits the Badische Co., in conjunction with the American representatives of most of the other German dye houses, changed from a consignment basis to a purchase basis. In order to handle the business on the latter basis it was necessary for the Badische Co. to increase its capital stock from $25,000 to $200,000. This increase of capital stock and the change from the consignee to the purchase basis was made after Mr. Nathan, of Cardozo & Nathan, had visited the home office of Ludwigshafen and brought back with him a series of memoranda as set out on pages 33 to 54, inclusive, of Mr. Garvan's examination of December 30. The important portion of the memorandum is set out on page 35, reading as follows:

"The various shareholders to buy the shares taken over by them at par or in so far as the payments are made for them by the Anilin Fabrik they are to pay the Anilin Fabrik back."

We have ascertained from the books of Messrs. Schultz & Ruckgaber that on the day after the increase of capital stock was paid in that the full amount, namely, $175,000, was remitted to Ludwigshafen by the Badische Co., the entries being a debit to Ludwigshafen and a credit to Badische's cash (see p. 55, Mr. Garvan's examination of Dec. 30), thus indicating clearly to my mind that the stockholders were dummy stockholders, having had the amount of the increase advanced to them by Ludwigshafen.

No explanation has been made as to why this money was remitted. It is perfectly true that at that time there was an open account beween the Badische Co. of New York and Ludwigshafen. But if the change of basis necessitated larger capital on this side, it is hard to understand why such a large amount of money identical with the amount of the increase should be remitted to Ludwigshafen directly after it was paid in by the stockholders.

In this connection also I might call your attention to the fact that the increase in capital stock was not apportioned among the stockholders in the same proportion as their holding were prior to July, 1913. Prior to July, 1913, Mr. Adolf Kuttroff had 239 shares out of a possible 250, while Mr. Carl Pickhardt had only 2 shares. On the increase, Mr. Kuttroff was allotted 1,205 shares and Mr. Pickhardt was allotted 600 shares, the balance was distributed among the other stockholders.

Just what the transactions were on Mr. Kuttroff's personal books at the time of the increase I am unable to state, as his check book for that period is missing

and his voucher checks are also missing. The peculiar circumstance about the thing is that this check book which is missing is the check book which was in use from January 31, 1912, to August 1, 1914. Mr. Kuttroff claims that this check book was destroyed when he cleaned out his desk sometime in 1917. (See Mr. Garvan's examination, bottom of p. 57.)

The reason for the change from a consignment basis to a purchase basis is set out in letters on pages 58, 59, 60, 61, 62, and 63 of Mr. Garvan's examination of December 30.

About one year after the increase of the capital stock the European war was started and as a result of the sales of dyes from August 1, 1914, to the time the United States entered the war the German dye house representatives in this country made enormous profits, both on the goods which they had on hand at the time of the starting of the war and on the goods which were sent to them from time to time by the German houses.

In September, 1915, a credit was passed to Ludwigshafen's account for $559,861.95 and on December 31, 1915, a further credit was passed to Ludwigshafen of $97,235,64. In 1916 $44,846.75 was credited to Ludwigshafen. All of these amounts, totaling $701,944.34, were entered on the books as debits to merchandise and credits to Ludwigshafen with the explanatory notation that these amounts represented royalties on the indanthrene patents from 1907 to 1916, inclusive, together with 5 per cent interest thereon. (See Mr. Garvan's examination, pp. 63, 64, 65, and 66.)

It must be remembered in connection therewith that some of these royalties were on dyes received by the Badische Co. while they were on a consignment basis from 1907 to June 30, 1913, and it will be noted that Mr. Kuttroff admits that too much credit was given to Ludwigshafen and that the Badische Co.

should get rebates for the years 1908 and 1909. (See Mr. Garvan's examination of Dec. 30, pp. 65 and 66.) Just why the Badische Co. should not be credited with the profits on all of the years up to June 30, 1913, I can not say.

In this connection I would call your attention to the fact that this matter was called to Mr. Kuttroff's notice over a month before your examination took place and at no time did he give your examiner any information as to too large a credit having been passed. It will be noted from a reading of the testimony that there was no agreement for the repayment of these indanthrene royalties. Mr. Kuttroff claiming that it was merely a verbal understanding between Ludwigshafen and himself made in 1907.

On December 31, 1914, the Badische Co. credited to Ludwigshafen $330,000, and on September 1, 1915, credited them with $147,100, the debits in both cases being the merchandise account. These two amounts totaling $447,100, represent the expense allowance of $414,000 previously mentioned in this report, together with $63,100 interest at 5 per cent. No liability was maintained on the companies' books for the amount sent to Ludwigshafen on account of the indanthrene royalties amounting to $701,944.34 nor for the $477,100 on account of the expenses. (See Mr. Garvan's examination, pp. 67, 68, and 69.)

These remittances totaling $1,179,044.34 should not have been charged to merchandise, but should have been shown as a division of profits which they really were.

In 1916, the submarine *Deutschland* made two trips and landed goods in this country for the Badische Co. The money to pay for these goods was borrowed by the Badische Co. In order that you may have a brief understanding of how the merchandise account was handled on the *Deutschland's* goods, I beg to ad-

vise you that on the first lot of goods the merchandise account was debited with $601,202.20 and Ludwigshafen was credited with the same amount. On the same days the goods were paid for in cash and Ludwigshafen was debited. On December 31, 1916, the merchandise account was credited and Ludwigshafen was debited with $601,202.20, the memorandum on the ledger being "Merchandise Pu (submarine) cancel item of August 11, *Deutschland* goods."

By these entries it will be seen that the goods were removed from the Badische Co.'s merchandise account and subsequent entries show that the goods sold here on a consignment for Ludwigshafen. These entries had been made after most of the goods had been sold and enormous profits made on the same. The reasons given by Mr. Kuttroff in Mr. Garvan's examination, page 88, for changing this from a purchase basis to a consignment basis was that it was too risky for the Badische Co. to take the risk of buying the *Deutschland* goods on the other side in case the submarine should not make a safe journey. As an offset to this I wish to call your attention to the fact that the goods were not sold to the Badische Co. on the other side. They were sold to Schumacher & Co., of Baltimore, who in turn sold them to the Badische Co., so that the latter took no risk in buying the goods after they were once on this side.

No correspondence has been exhibited showing that Ludwigshafen notified the Badische Co. that the goods were being shipped to them, and it is common knowledge that the landing of the *Deutschland* here was a surprise to everybody concerned. Furthermore, it is my understanding also that the goods on the *Deutschland* were fully insured and therefore no risk was taken.

In addition to the $601,202.20 another shipment

of *Deutschland* goods was received in this country in 1916 and the amount involved in this transaction, which was handled in exactly the same way, was $283,100.45. A calculation made by me would seem to point to the fact that the total profits up to December 31, 1916, on the *Deutschland* goods were $405,735.31.

On January 1, 1917, one month after the *Deutschland* goods were changed from a purchase basis to a consignment basis, the goods remaining on hand were put back on a purchase basis. By this means all of the profits on the submarine goods, with the exception of a small proportion, were given to Ludwigshafen. Even the goods just mentioned which were taken over in January, 1917, were on a sales price basis. (See Mr. Garvan's report, pp. 88, 89, 90, and 90½.)

In addition to the foregoing facts, it might be well to point out to you that when goods were previously sent on consignment Ludwigshafen was not paid for them until the goods were sold, while the submarine goods were paid for at the time of their delivery in this country, the Badische Co. having to borrow money to carry on this transaction.

There was another transaction in 1915 to which your attention should be directed, though it did not involve the passing of any profits to Ludwigshafen. On May 7, 1915, certain goods to the value of $302,139.71 were purchased by the Badische Co. from Ludwigshafen and were supposed to be sent to this country on the steamer *City of Memphis*. The invoices are in the Badische Co.'s hands but they claim that the goods were never received. They did, however, debit the merchandise account and credit Ludwigshafen at the time of the receipt of the invoices. On December 31, 1915, their inventory of their regular merchandise account (not submarine account) showed as follows:

Merchandise on hand in America	$7,256.86
Merchandise on hand in Europe	302,139.71

On April 19, 1916, Ludwigshafen was debited with $302,139.71 and merchandise account was credited, thus removing these goods from their merchandise account and from their books altogether. On December 31, 1916, their merchandise account was debited with $302,213.71 and Ludwigshafen was credited with the same amount. On December 31, 1916, their inventory of their regular merchandise account (not submarine) showed as follows:

Merchandise on hand in America	$756.42
Merchandise on hand in Europe	302,139.71

By this last entry the goods were placed back in the merchandise account and the liability to Ludwigshafen thus increased and helped to make the enormous remittances previously mentioned more plausible; the last entry was again reversed in January, 1917. Mr. Kuttroff's explanation of this transaction is contained on page 90½ and 91 of Mr. Garvan's examination of December 30. In addition thereto I wish to call your attention to the fact that the invoices for these goods indicate from the check marks that the goods had been received.

It will thus be seen that by the various transactions set out herein, $1,584,779.65 has been passed to Ludwigshafen's credit and actually remitted to them out of the profits of the years 1914, 1915, and 1916, entirely without any action or solicitation on their part demanding the money.

During the same period of time the stockholders of the Badishe Co. of New York received their regular dividends of 6 per cent on the stock of the company. This dividend, of course, was supplemented by a profit-

sharing arrangement which added approximately $200,000 to the 6 per cent dividend.

In July, 1913, Adolf Kuttroff and Carl Pickhardt deposited the stock which stood in their names to Ludwigshafen's account in Title Guarantee & Trust Co. The stock was deposited under the agreement dated June 30, 1913, which reads as follows:

AGREEMENT WITH STOCKHOLDERS OF BADISCHE CO.

Agreement made this 30th day of June, 1913, between Adolf Kuttroff, of the city of New York, of the first part, and the Badische Anilin & Soda Fabrik, a corporation duly organized and existing under the laws of the Grand Duchy of Baden, Germany, of the second part, witnesseth:

Whereas the party of the first part is the holder of 1,205 shares of the capital stock of the Badische Co., a corporation organized under the laws of the State of New York; and

Whereas by an agreement between the party of the second part and the Badische Co., dated the 30th day of June, 1913, the said Badische Co. has, except as otherwise provided in said agreement, the conclusive right to purchase all dyestuffs, chemicals, and other articles manufactured by the party of the second part to be sold in the United States of America, and the British possessions in North America, for the period of five years from the 1st day of July, 1913, and for any further extensions of said period as provided in said agreement:

Now, therefore, in consideration of the premises and of $1 by each of the parties to the other in hand paid, receipt whereof is hereby acknowledged, it is agreed as follows:

The party of the first part hereby agrees to sell to the party of the second part or to such person, firm, or corporation as it may designate said 1,205

shares of the capital stock of said Badische Co. at any time on or after the 1st day of January, 1916, on payment of the par value thereof with interest at 6 per cent per annum from the first day of the current fiscal year.

And the party of the second part hereby agrees to purchase or cause to be purchased said 1,205 shares of the capital stock of said Badische Co. held by the party of the first part, on his demand at any time after said 1st day of January, 1916, and to pay or cause to be paid therefor the par value with interest at 6 per cent per annum from the first day of the current fiscal year.

It is further agreed that the party of the first part shall not sell or transfer his stock in said Badische Co., nor create or suffer to be created any lien, pledge, or encumbrance of or upon said stock or any part thereof.

This agreement shall apply to and cover any further shares of the Badische Co. the party of the first part shall get hold of by any increase of capital stock of said company or otherwise as well as to the shares now held by the party of the first part.

It is also understood and agreed that this agreement shall be binding upon the parties hereto and upon their respective executors, administrators, and legal representatives, and that the certificate of stock held by the party of the first part shall have indorsed thereon the fact that it is held subject to the conditions of this agreement.

In witness whereof the party of the first part has hereunto set his hand and seal and the party of the second part has caused its corporate seal to be hereto affixed and these presents to be signed by its directors the day and year first herein written.

ADOLF KUTTROFF.

[SEAL] BADISCHE ANILIN & SODA FABRIK.

HUTTENMULLER, MICHEL.

A similar agreement was entered into between Mr. Pickhardt and Ludwigshafen, except as to the number of shares. Further reference will be found to this matter in Mr. Garvan's examination of December 30, on pages 71, 79, 80½, 81, 82, 83, 84, 85, 85½.

In April, 1916, the capital stock of the company was reduced from $200,000 to $25,000, the reason given for the reduction to Ludwigshafen being contained in the following letter:

APRIL 24, 1916.

BADISCHE ANILIN & SODA FABRIK.

In view of the fact that for some time we have had no use for a larger sum of money, and we also can only ask the low interest of 2 per cent from the bank, we have decided to reduce the capital of the Badische Co. from $200,000 to $25,000; that is, to reduce the par value of the shares from $100 to $12.50. We have the promise of the shareholders that, when business will again be normal, they will be willing to put in the necessary funds for increasing the capital again.

With friendly regards,

BADISCHE CO.

(Letter did not arrive. We wrote again No. 266, 8-8-16.)

The fact remains, however, that at this time or shortly after this decrease in stock was made, the submarine goods came in and the Badische Co. was compelled to borrow considerable money in order to finance the transaction.

In 1916 about $40,000 was remitted to Ludwigshafen, the same being the profits received by the stockholders in addition to their dividends. The claim is made that Ludwigshafen suggested the stockholders making this remittance; that they would pay 5 per cent interest on the money, and that they would re-

turn the same to them in dollars, the stockholders profiting by the exchange rate. On March 20, 1917, $100,000 was remitted to Ludwigshafen of which $87,000 was for tantiemes accruing to the various stockholders.

Mr. Kuttroff explains that this is on the same basis. No evidence has ever been exhibited to us of this request from Ludwigshafen and it will be noted that the last remittance of $100,000 was made a few days before the United States went to war with Germany and many weeks after Ambassador von Bernstorff had left the country. This remittance, however, did not reach the other side but was returned to the Badische Co. by Schulz & Ruckgaber, through whom the money was originally remitted. The Badische Co., however, claimed that $87,000 of this money did not belong to them but to the stockholders and Schulz & Ruckgaber then remitted individually to each of the stockholders. The balance of the money, $13,000, was turned over to the Alien Property Custodian as belonging to Ludwigshafen. (See pp. 75, 76, 77, 78, and 78½ of Mr. Garvan's examination of Dec. 30.)

I also wish to call your attention to the fact that on December 31, 1914, the Ludwigshafen account on the Badische books was debited with $150,000. This amount represented money deposited in the American Exchange National Bank and in the German American Bank, which was marked "at the disposal of Ludwigshafen" in the journal and cash book.

In January, 1915, this entry was reversed.

On December 31, 1915, Ludwigshafen was debited with $227,144.14, which represented a balance in the American Exchange National Bank of $142,022.04 and a balance in the German American Bank of $85,122.10.

In January, 1916, these entries were reversed.

The only object that I can see for these transactions was that it improved the financial statement

which the Badische Co. of New York was able to make at the end of the year by reduction of the liability to Ludwigshafen. The fact that the bank accounts were at the disposal of Ludwigshafen would not show on their statement.

In further proof that the bank accounts mentioned above were at the disposal of Ludwigshafen and were for their restricted use, your attention is called to the fact that the interest up to April, 1916, on these balances was credited to Ludwigshafen.

It is also interesting to note that these accounts were opened at the beginning of the European war in August, 1914, and that the following items were paid out of these accounts, namely, the amount paid out for the reduction of stock in 1916, and the $100,000 remittances of March 20, 1917, which were presumably for tantiemes of 1915 and 1916.

The ledger accounts controlling these bank accounts were orignally called "B S A F Special Account"; subsequently, however, the name changed to "Badische Co. Special Account."

I desire also to call your attention to the fact that on August 14, 1917, the following resolution was adopted by the board of directors of the Badische Co.:

"Whereas, since the declaration of war between the United States and the German Government, this company has not transacted any business directly or indirectly with any person or corporation in Germany; and

"Whereas the business since conducted by this company has been strictly and solely in behalf of its stockholders all of whom are citizens and residents of the United States:

"Now, therefore, it is resolved and declared that in the conduct of the business of this company since the declaration of war as aforesaid, any and all contracts and obligations with any enemy of the United

States or with any ally of any enemy of the United States, shall be and be deemed abrogated and annulled, and that no enemy of the United States, personal or corporate, and no ally of any enemy shall have or be deemed to have any right, interest, or control in or over the business or affairs of this company."

Just what purpose was to be served by this resolution is unknown. If the Badische Co. was an independent company and not purchasing any goods from Germany, there was no reason to pass a resolution of this kind. It may have referred, however, to the option to Ludwigshafen which is still existent or practically all of the stock of the Badische Co. It is interesting to note that the resolution was passed at the time when the trading with the enemy act was under consideration by Congress.

In October, 1917, after the trading with the enemy act was passed, Kuttroff, Pickhardt & Co. (Inc.), was organized with the same directors and four of the same stockholders as the Badische Co. Kuttroff, Pickhardt & Co. assumed the Badische contracts, both purchase and sales, and assumed the leases of the Badische Co. Among the peculiar transactions involved in this incorporation were the following:

The Badische Co. paid the Kuttroff, Pickhardt & Co. (Inc.) $44,899.27 for assuming their leases, though at the time that this transaction was made rents were increasing and not decreasing. In addition thereto they purchased $69,558.05 of goods from the Badische Co. Of this amount, $18,570.10 were goods which had come over on the *Deutschland* and which represented an average price of $4.12 a pound, while the goods had originally cost the Badische Co. $13 per pound. These goods, which cost the Kuttroff, Pickhardt & Co. $18,000, were subsequently sold at a profit of $79,118.75. This would seem to differ from the minutes of the Badische

Co. adopted at a special meeting of board of directors October 26, 1917:

"Adolph Kuttroff, president, and Fred'k Kuttroff, secretary, are authorized to sell the entire stock or any part thereof of dyestuffs, colors, and chemicals now owned by this company at not less than the market price; and also to sell the furniture, fixtures, and laboratory equipment at such prices as he may deem fair and reasonable. They are also authorized to sell, assign, and transfer 20 shares of the capital stock of Chemists Building Co., certificate No. 88, now standing in the name of this company, and to appoint one or more attorneys for this purpose."

In connection with the paying in of the stock of Kuttroff, Pickhardt & Co. it is interesting to note that Mr. Kuttroff drew in advance $20,000 of anticipated profits, though it was the usual custom of the Badische Co. to declare its profits on December 31 and to pay them the following year. (For further information relative to this see Mr. Garvan's examination, pp. 91, 92, 93, 94, 95, and 96.)

The files of the company show that certain important letters have been taken from the files. Mr. Kuttroff admits that his personal files have all been destroyed. (See pp. 97, 98, and 99 of Mr. Garvan's examination.)

To show the further control of Ludwigshafen, it was evident that Ludwigshafen was interested in the lease of the premises occupied by the Badische Co. In fact, they inquired from the Title Guarantee & Trust Co. before allowing the Badische Co. to sign the lease with Mr. Kuttroff, the owner of the building in 1914, and obtained from them a full and complete report on the same. Ludwigshafen also had an option to purchase the premises occupied by the

Badische Co. at 26 North Moore Street, for which $2,000 was paid. This option expired on the 31st day of December, 1918. Also an option on the premises 126 to 128 Duane Street, for which a nominal payment of $1 was given, and which expired on the 31st day of December, 1916. And also option on the premises at 20, 22, and 24 North Moore Street, for which a nominal consideration of a dollar was paid, and which option expired on December 31, 1918.

In addition to the control of the lease, it is evident from an intercepted letter under date of December 19, 1916, from Mr. Kuttroff to Ludwigshafen, that he was consulting them about salaries. The letter, which is a translation from the German, has been admitted by Mr. Kuttroff as correct, and reads as follows:

"With reference to my letters of the 17th and 15th instant, reference private U-7-12, I beg to state that on account of the enormous increases in the cost of living a 10 to 20 per cent rise of salary will be made to all business employees and to Government and municipal officials. In some cases business employees will receive a 25 per cent bonus on the year's salary instead of an increase. The wages of factory and other workers has risen from 35 to 60 per cent. In order to do justice to the case a rise of 15 per cent is recommended for persons of low salary and a bonus of 20 per cent for persons of medium salary. We await your decision by radio."

The reply came by wireless as follows:

"Agree increase salaries lower staff moderately amounts. Commission same as 1913, excepting yourself, Pickhardt, Poucher, Lendle. Consider Lendle's demand excessive. Agree total commission 180,000 instead of guaranties 4,800. If necessary concede 22,800. Await remittances."

From this it will be seen that Mr. Kuttroff was asking the approval of Ludwigshafen before he could increase salaries.

DISCOVERIES SINCE EXAMINATION OF DECEMBER 30, 1918, OR NOT BROUGHT OUT AT THAT TIME.

In order to show the ownership of Ludwigshafen in the stock of the Badische Co. and, therefore, consequently in the stock of Kuttroff, Pickhardt & Co., the following letter is set out in full. This letter was found in the files of Cardozo & Nathan:

[Translation of confidential letter to Mr. A. Kuttroff from Ludwigshafen.]

"Dated Sep. 13, 1912.

"We have at this moment again under consideration the question of including in our Officers Pension Fund the officers of our various branches and selling houses outside of Germany. Against a general admission of these gentlemen there are numerous serious scruples. To begin with, we have to figure with the law of the different countries in which insurance enterprises, especially foreign ones, can not carry on business without the permission of the state, and according to reports on hand it appears at least doubtful that in such countries, in case the gentlemen employed there are admitted, also our fund will not be subject to such permission and control. Further, with the officers of our foreign branches, etc., it is much more difficult and in many cases directly impossible, to examine on the base of the statute the question whether the conditions for the beginning and continuance of the pension are given. There are special scruples against the admission of employees of such foreign selling houses, which for tax-political reasons are organized as independent companies, and whose independence

may be rightfully doubted by the tax authorities when it becomes known to them that the employees of such companies are members of our Pension Fund here.

"These scruples, though they do not seem invincible, are so weighty that we can consider the admission of the employees of our foreign branches, etc., only if it brings not only to them but also to our firm considerable advantage. This advantage we could see only in that such employees through admission in our Pension Fund would become more closely connected with the interests of our establishments, so that they regard their positions as life positions.

"Such an intimate attachment of the officers to the concern appears to be specially desirable for America, where the connections between principal and employees are so loose that often written employment contracts are not made at all, periods to give notice of intended separation are not agreed upon and where no one can be held legally to fulfill any obligations in regard to periods agreed upon.

"But just on account of the American conditions we have grave doubt, whether by admitting the gentlemen there to our Pension Fund we would attain the desired purpose, and we also doubt whether the gentlemen themselves take any special interest in the admission.

"Before we come to a decision in this matter we should like to hear your opinion. We therefore ask you to kindly write us in detail about the various questions mentioned above."

The letter bears no signature, but is marked at the top "Translation of confidential letter to Mr. A. Kuttroff from Ludwigshafen." The whole letter is of importance, indicating as it does that Ludwigshafen considers the independent organization of the branch houses merely from "tax-political reasons." (See first paragraph.)

It may be interesting to note in this regard that the following gentlemen, Dr. Ruppenthal, Dr. Meyer, Dr. Pfister, Dr. Lendle, and Mr. Hill, now in the employ of the Badische Co. and Kuttroff, Pickhardt & Co. (Inc.), but formerly in the employ of Ludwigshafen, continued the payment of their pension premiums to the parent house as long as possible.

Ludwigshafen received reports of the sales made and also a list of the customers who are unable to pay their bills. Also, according to the testimony of Mr. Kuttroff, given before Mr. Choate, Ludwigshafen fixed the prices at which the goods could be sold in this country, even after the Badische Co. became an apparently independent house. They continually sent to the other side copies of the ledger balances, journal, check, and cash accounts each month. On June 16, 1916, they sent their proposed contract with their customers to Ludwigshafen for their approval and advice.

In my preliminary report to you I pointed out that there had been established in this country a fund of $440,000. On December 31, 1914, the merchandise account was debited and the guaranty fund account was credited with $50,000. On December 31, 1915, the merchandise account was again debited and the guaranty account credited with $330,000. These amounts were set aside presumably to cover any law suits which might be brought against the Badische Co. for breaking off their contracts with their customers due to inability to make deliveries at the contract price. Upon investigation we find that the Badische Co. was not sued, and was only threatened with one suit, and that no reason exists for the setting aside of this enormous reserve fund. (Refer to Mr. Garvan's examination, pp. 70-71.)

In addition to the $380,000 mentioned above, the Badische Co. owns $80,000 of Liberty bonds which they carried in the United States securities account.

On Tuesday, January 7, 1919, the following entries were made in the journal and consequently in the ledgers, under date of November 26, 1918:

Debit—Adolf Kuttroff and Carl Pickhardt in safe deposit box No. 188, trustees for stockholders of the Badische Co.	$440,500
Credit—United States securities transferred United States Liberty bonds to Adolf Kuttroff and Carl Pickhardt, trustees	440,500

In this connection a resolution was adopted, apparently at a special meeting held on November 26, 1918, but of which your examiner had no knowledge until recently, and no mention was made by either Mr. Kuttroff or Mr. Nathan of the establishment of this trusteeship at the examination on December 30, 1918. The resolution adopted reads as follows:

"On motion duly made and seconded it was—

"*Resolved,* That the assets of this corporation to the extent of $440,500, consisting of United States Liberty loan bonds, be transferred to Adolf Kuttroff and Carl Pickhardt, to be held by them for stockholders of record on October 31, 1917, in accordance with their respective interests, and subject to deductions for any additional income and excess-profits tax, War Department, and for any claims heretofore presented against this company for and when established, to be distributed by said Adolf Kuttroff and said Carl Pickhardt when they deem it advisable.

"Unanimously adopted.

"Attest: FREDERICK KUTTROFF, *Secretary.*"

It will be noted that the entries on the ledgers were made after my preliminary report to you dated December 28, 1918, and after the examination conducted by you on December 30, in which you indicated

the possibility of this money belonging to Ludwigshafen.

Mr. Nathan has stated to Mr. Choate that the reason for making these entries and passing this resolution was that he desired to distribute as much of the assets as possible, other than the capital assets of the company, in such a way that the creditors and stockholders would be fully secured and that having in mind Ludwigshafen's option he did not wish to make the stock of the Badische Co. any more valuable than necessary to them.

Among Mr. Nathan's papers we found the form of a contract between Ludwigshafen and Adolf Kuttroff, apparently bearing the date of October 30, 1909, and which would seem to expire on December 31, 1915. This contract, which is here set forth in full, would seem to be an absolute contract of employment between Ludwigshafen and Adolf Kuttroff. It provides for the payment of certain emoluments to Mr. Kuttroff by the Badische Co., of New York. It is not easy to understand how an apparently independent concern, the Badische Co. of New York, could have its finances disposed of by a party or parties who had no stock ownership.

Upon questioning Mr. Kuttroff as to whether he ever signed this contract, he informed one of my assistants that he did not remember whether the contract was signed or not, and when he was asked for the original contract my assistant was informed that the same had been destroyed.

The contract referred to reads as follows:

(NOTE.—Words in italics are inserted in pencil on original copy; words between parentheses have pencil mark drawn through them on original copy; words in solid capitals are underscored in pencil on original copy.)

"AGREEMENT made the *30th* day of *October*, 1909, between the Badische Anilin & Soda Fabrik, a corporation duly organized and existing under the laws of the Grand Duchy of Baden, Germany, located at the town of Ludwigshafen on the Rhine, party of the first part, and Adolf Kuttroff, of the Borough of Manhattan, City, County and State of New York, party of the second part, Witnesseth:

"Whereas, the party of the second part for some years has been and still is acting as the representative in the United States of the party of the first part, pursuant to the terms and conditions contained in two agreements between the parties hereto bearing date the 8th day of October, 1906, and the 4th day of August, 1908, respectively; and

"Whereas, the period of five years specified in the said agreements will expire on the 31st day of December, 1910, and the parties hereto have agreed to extend said period for the further term of five years from the 1st day of January, 1911, upon the same terms and conditions except as herein modified;

"Now, therefore, in consideration of the premises and of the mutual covenants herein contained, it is agreed as follows:

"The party of the first part hereby employs the party of the second part to act as its representative in connection with its business interests in the United States, for the period of five years from the 1st day of January, 1911, to the 31st day of December, 1915, in like manner as he is now acting under the existing agreements between the parties hereto, except that the compensation of the party of the second part shall be modified as hereinafter stated.

"The party of the second part hereby agrees to act as such representative for the period aforesaid in the conduct of the business of said party of the first part in the United States, through the Badische Com-

pany, a corporation organized and existing under the laws of the State of New York, or through such other party, firm or corporation as the party of the first part may hereafter otherwise arrange.

"It is understood and agreed that the party of the second part shall have and receive as a fixed annual salary from the Badische Company, or its successor in the business of the party of the first part, the sum of $10,000 during the period aforesaid, payable monthly.

"It is further understood and agreed that in addition to such annual salary the party of the second part shall have and receive from the party of the first part, through said Badische Company, or its successor in said business, during the period aforesaid, a commission on its total sales, based upon the net amount actually received therefor, at the same rate and upon the same commodities as is more particularly set forth in said agreement between the parties hereto bearing date the 4th day of August, 1908, together with a like percentage of the net profits on said sales, as is also in said agreement set forth.

"It is further understood and agreed that if the salary, commissions AND SHARE OF NET PROFITS (to be received by the party of the second part) for the year ending the 31st day of December, 1909, *as computed under the terms of the agreement of Aug. 4, 1908,* shall not aggregate the sum of $56,000, the various (commissions) *percentages of com. & share of net profit* to which the party of the second part shall be entitled in each of the five years following the 31st day of December, 1910, shall be proportionately increased to the extent necessary to aggregate, WITH SAID SALARY (and share of net profits,) the sum of $56,000 when computed upon the business for said year ending the 31st day of December, 1909; and that said increased *percentages of* commissions, *and share*

of net profits so ascertained, shall be and be deemed the basis for computing the annual commissions *and share of net profits* to be allowed and paid to the party of the second part by the party of the first part during the portion of five years herein provided.

"It is further understood and agreed that the party of the first part shall not be required to pay the party of the second part, during said period of five years herein provided, any further compensation than the amount of annual salary, commissions and share of net profits herein specified.

"*Out there are special compensations for sale of processes, etc.*

"It is further understood and agreed that in all other respects the covenants and provisions contained in the existing agreements between the parties hereto shall be and remain in full force during the renewal period herein provided.

"It is further understood and agreed that the provisions of this agreement shall apply to and bind the successors and assigns of the said party of the first part.

"In witness whereof the party of the first part has caused its corporate seal to hereunto affixed and these presents to be signed by its and the party of the second part has hereunto set his hand and seal the day and year first above written.

"(*Acknowledgments*)."

In connection with the organization of Kutroff, Pickhardt & Co. (Inc.), and the guaranty fund account which was set aside, your attention is called to the following letters and contracts. The letters are from the attorneys of Messrs. Rosentwist & Goerner, the only concern which threatened suit against the Badische Co. for failure to deliver dyestuffs after the commencement of the European war. It will be noted that these

letters object to the formation of Kuttroff, Pickhardt & Co. (Inc.), and the dissolving of the Badische Co., and in order that the same might be carried on the contracts set out herein were entered into by Kuttroff, Pickhardt & Co. (Inc.), but no record has been made of the contingent liability thereunder on their books. The letters and contracts referred to are as follows:

CLARENCE L. NEWTON,
60 STATE STREET,
Boston, June 20, 1918.

Messrs. CARDOZO & NATHAN,
128 Broadway, New York City, N. Y.

GENTLEMEN: Your favor of the 18th in re Rosentwist & Goerner matter received.

You have noted from my action in the past that we are inclined to do everything conducive to our client continuing friendly relations, and we have lett the contract in abeyance up until it came to our attention that your people were dissolving the Badische Co., and the same individuals had organized a new one, and that the new company is carrying on business at the same places as the old, except that it has dropped the Canada office. Under the circumstances I felt that we ought to ascertain the present situation, in order that it might not turn out later that the Badische Co. had been dissolved and all rights lost.

I note your suggestion that the present company assume the obligation. Will you kindly indicate to me in what way you propose to accomplish this. I will then submit it to my clients, and I am sure that we can fix the matter along this line.

Yours, very truly,
CLARENCE L. NEWTON.
E. F.

SEPTEMBER 5, 1918.

CLARENCE L. NEWTON, Esq.

DEAR SIR: We have your favor of the 4th instant. The Badische Co. has abundant assets to pay all creditors, and in the liquidation of its assets it may be of practical importance that all claims and obligations should be asserted and established against it.

We fully appreciate the objection as to consideration; it is the desire and purpose of Kutroff, Pickhardt & Co. (Inc.) to continue business relations with Messrs. Rosentwist & Goerner, and that affords a real consideration for the guaranty of the claim against the Badische Co.; to meet your objection we have drafted a more formal guaranty to which we propose the consent of all stockholders, and we believe that the consideration stated is sufficient to make such guaranty valid. The company is a business corporation, and we agree with your contention that a guaranty solely for accommodation might be of questionable validity.

Even though you conclude there is slight doubt, we believe that your clients will approve the accompanying guaranty, as the Badische Co. is able to meet all its legal obligations.

Yours, very truly,

CARDOZO & NATHAN.

CLARENCE L. NEWTON,
60 STATE STREET,
Boston, September 16, 1918.

Messrs. CARDOZO & NATHAN,
128 Broadway, New York City, N. Y.

GENTLEMEN: I have your favor of the 4th and have given some little time to the examination of your law in order to ascertain what protection Messrs.

Rosentwist & Goerner would have in event they entered into the stipulation proposed by you.

As I read your general corporation law, section 221, I do not find anything which seems to limit the time within which my clients must establish the indebtedness. In most jurisdictions whenever a corporation is dissolved a fixed time is given within which to prove claims or liquidate liabilities, and those not proven or liquidated within the fixed time are forever barred, and I very much fear that we will be put in a position of being called upon to take action to establish our claim against the Badische Co. at a time when it may be too late to do so, and then the guarantee will be of no value.

The upshot of it all is that I fear at some future time we will be left in a very chaotic, mixed-up situation and perhaps unable to do anything, all of which I am very desirous of avoiding.

What objection is there to the new corporation assuming such obligations as the Badische Co. had on these several contracts, so that we are left in precisely the same position against the new company as we would have been in against the Badische Co. had it not been dissolved, and your client, the new company, would have been under precisely the same obligation. We do not want by these negotiations to place any further liability upon your present company, nor do we want to be put in a place where we are left out entirely.

From the records and our investigation it would appear that the interests in the new company are practically identical with those of the Badische Co. I wish you would think this matter over along these lines and let me know if it can not be attended to in this way.

Yours, very truly,

CLARENCE L. NEWTON.

For and in consideration of $1 and of other valuable consideration, the receipt whereof is hereby acknowledged, Kuttroff, Pickhardt & Co. (Inc.), a corporation duly organized under the laws of the State of New York, does hereby guarantee the payment by the Badische Co., a corporation duly organized under the laws of the State of New York, of any damages with Rosentwist & Goerner, a copartnership carrying on business in Boston, Mass., may establish against said Badische Co., by reason of the alleged breach by said Badische Co. of four contracts between said mentioned company and said firm of Rosentwist & Goerner, dated respectively, October 18, 1913, November 20 and 28, 1913, and June 24, 1914, for the shipment of certain dyestuffs therein more particularly specified.

Dated New York, October 18, 1918.

[SEAL] KUTTROFF, PICKHARDT & CO. (INC.),
By ADOLF KUTTROFF, *President.*

City, County, and State of New York, ss:

On the 18th day of October, 1918, before me personally came Adolf Kutroff to me known, who, being by me duly sworn, did depose and say that he resided in the city of New York, N. Y.; that at the time of the execution of the above instrument he was and still is the president of Kutroff, Pickhardt & Co. (Inc.) the corporation described in and which executed the above instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

[SEAL] ERNEST BOENKE,
Notary Public, Kings Co. No. 12.

Certificate filed in New York County, 22.

We, the undersigned, being all the stockholders of Kuttroff, Pickhardt & Co. (Inc.) do hereby approve, ratify and confirm the foregoing guaranty by said company, and do hereby acknowledge and declare that the said guaranty was executed for good and sufficient legal consideration to the said corporation.

Dated, New York, October 18, 1918.

ADOLF KUTTROFF.
CARL PICKHARDT.
FRED'K KUTTROFF.
W. P. PICKHARDT.

City, County and State of New York, ss:

Frederick Kuttroff, being duly sworn, says that he is the secretary of Kuttroff, Pickhardt & Co. (Inc.) and that the foregoing consent has been signed by the holders of all the stock of said corporation issued and outstanding.

FRED'K KUTTROFF.

Sworn to before me this 18th day of October, 1918.
[SEAL] ERNEST BOENKE,
Notary Public, Kings County, No. 12.
Certificate filed New York County, 23.

Indorsement: Kutroff, Pickhardt & Co. (Inc.) to Rosentwist & Goerner. Copy. Guaranty. Dated, September 18, 1918. Cardozo & Nathan, counselors at law, No. 128 Broadway, New York City.

CONCLUSIONS.

To my mind, Kuttroff, Pickhardt & Co. and the Badische Co. are the most dangerous to American dye interests of all the German dyehouse agencies I have examined. They have attempted no manufacturing in

this country and stand ready to-day with their organization intact to continue the sale of German dyes in this country as soon as they are able to procure them.

The complete dominance by Germany is shown from the very beginning of the firm's existence.

In the early years Ludwigshafen was a special partner of the partnership.

When it was changed to a corporation, Ludwigshafen received the larger percentage of the profits.

The books show that at the beginning of the Badische Co. the original money was invested by Ludwigshafen.

In the early years of the Badische Co. it was nothing more than a branch house of Ludwigshafen.

It then changed to a selling agency and finally, by purchasing the goods under very liberal terms, set themselves up as an independent house.

This, however, is contradicted by the fact that there was an option for the purchase of practically all of the stock of the Badische Co.

Ludwigshafen controlled the prices at which the goods were sold, and received full and complete reports of every detail from the Badische Co. and had to be consulted as to salaries, rents, and other details, which an independent house would never think of submitting to.

The contract of October 30, 1909, between Ludwigshafen and Adolf Kuttroff, which would seem to provide for him as an employee of Ludwigshafen at the expense of the Badische Co., and his refusal to advise us whether the same was ever entered into, constitute to my mind an important link in the chain of evidence of the control of the Badische Co. by Ludwigshafen.

And to cap the climax, the paying of over $1,500,000 out of the profits of 1914, 1915, and 1916, without the consent or approval of its stockholders or

directors, to Ludwigshafen, and without the solicitation of Ludwigshafen, proves conclusively to mind that there is a secret agreement as to the profits either written or verbal betwen the Badische Co. and Ludwigshafen.

As to Kuttroff, Pickhardt & Co. (Inc.), from the methods of organization set out herein, the liberal rent arrangements as made with them, the absurd prices at which goods were transferred to them, the assumption of the liability of the Badische Co. to Rosentwist & Goerner, and the fact that the Badische Co.'s entire office, laboratory, and sales force were kept intact, would seem to prove conclusively that Kutroff, Pickhardt & Co.'s (Inc.) business object is merely to keep alive the Badische Co. under a name which they thought was not as German as the Badische Co. of New York. When in conjunction with these things, it is remembered that Kuttroff, Pickhardt & Co. (Inc.) was organized just after the passing of the trading with the enemy act, the intent and purpose of the organization becomes doubly clear.

All of which is respectfully submitted.

DEFENDANT'S EXHIBIT No. 55.

LETTER FROM HOECHST COMPANY SIGNED BY HAUSER TO H. A. METZ.

HOECHST A/M, *September 20, 1919.*

Indigo convention.

Very confidential.

For the purpose of rendering more difficult any competition that might develop toward the business, the customers should now be notified that they should make their contracts for supplies now for a period of two years, and, of course, at prices with discount al-

lowances which depend upon the two-year quantity amount.

Customers who get a 20 per cent discount on an order of 5,000 Ko. per year will get the benefit of the 10,000 Ko. prices, with a two-year contract, for 10,000 Ko. at 20 per cent off; also those whose order now amounts to 2,500 Ko. per year on which they get 20 per cent will get the 5,000 Ko. prices on a two-years' contract, less 20 per cent; and those firms whose yearly consumption only amounted to a few casks per year—if they sign a contract for at least 1,000 Ko. for two years, 20 per cent—will enjoy the 1,000 Ko. prices.

In the case of larger contracts, the advantage will lie in the granting of a larger discount—I am afraid that Mr. Metz was reminiscent—according to the quantities contracted for. For example, customers whose early needs amount to 15,000 Ko. at 20 per cent and who can now close a two-year contract for 30,000 Ko., 20 per cent, will enjoy the benefit of an extra 1 per cent, as well as those firms who will now close a 50,000 Ko. 20 per cent contract, instead of a 25,000 Ko. 20 per cent contract, will enjoy the benefit of an extra 2 per cent instead of 1 per cent, etc.

Furthermore, the following circumstances have been provided for:

1. The increase of a contract should now, as heretofore, only start six months from the date of the conclusion of the contract. The contingency of a two-year contract can, therefore, also be extended to cover a now existing contract in the case of those consumers whose six months' time period has not yet expired.

2. It is allowed, even if the amount of the contract has not been entirely taken up after the expiration of the first year's consumption of the quantities contracted for, in as far as they are entitled to a discount, to grant the discount due on them. Examples: A customer who up to date used 50,000 Ko. 20 per cent per year

closes a two-year contract for 100,000 Ko. 20 per cent, and has accordingly the right to a 3 per cent discount.

Consequently, after taking 50,000 Ko. 20 per cent he should be entitled to calculate a 2 per cent discount while he will enjoy 3 per cent upon the delivery of a further 50,000 Ko. 20 per cent, and upon the first half of the remainder 1 per cent.

It is understood that, even though he gets the discount accruing to the quantities already delivered before the settlement of the entire contract, he is not relieved from his obligation to take the remainder of the amount which he pledged himself to take.

3. Customers must close a contract for the whole quantity which comprises their normal consumption for two years; however, they are permitted to increase same within six months from the date of the contract in the event that they think that they will require a larger quantity than that for which they contracted.

4. On the other hand, it is not allowed that a customer who only arranged for a small quantity as his total consumption for two years, or only closed a contract for a one-year supply, should later be permitted to increase same.

5. The prolongation of the period of time for ordering provided for thus far being three months, it also remains in force for two-year contracts—therefore, as if the order period were actually two and one-quarter years.

* * * * * * * * *

6. The amounts contracted for must be accepted under all circumstances within the period of time arranged for their delivery, and an extension of the duration of the delivery time, with the exception of the above-mentioned three months, cannot be considered any more.

To provide for such customers whose two-year

consumption will be larger than was provided for in the previously planned scale, and to encourage them to make such large contracts now for two years, the discount scale continues as follows:

To be discounted:
For contracts of 300,000 Ko. 20 c/c in 2 years 6.
For contracts of 450,000 Ko. 20 c/c in 2 years 6½.
For contracts of 600,000 Ko. 20 c/c in 2 years 7.
For contracts of 900,000 Ko. 20 c/c in 2 years 7½.

Very truly,

HAUSER.

Dealers and exporters are prohibited from enjoying the aforementioned advantages.

DEFENDANT'S EXHIBIT No. 56.

FARBWERKE VORM MEISTER LUCIUS & BRUNING,

Hoechst am Main, September 3, 1913.

[Confidential.]

Indigo Convention, America.

Taking into consideration our various verbal discussions of this affair we inform you that our patent lawyer in the United States has entirely changed his view of the whole situation after another thorough examination. He now believes that one can not exonerate the upholding of the common sales prices in the existing patent situation, that it has to do with a patented article. We are then in the same position regarding indigo, as toward the other conventions.

Unquestionably the conditions are not so advantageous in any convention as in the indigo convention, and in case of an attack, much could be said in favor of the same. Our lawyers have pointed out, after taking into consideration all the arguments which can be

brought up, that the indigo convention also would fail under the Sherman law, because it is certain that the indigo prices over there would be cheaper than they are now, if no understanding between our two firms existed.

Since the indigo convention has already often been introduced, especially in the newspapers and in legal dealings, we are of the opinion that we should not hesitate to suspend the price agreement for America. Since, however, in this convention only our two firms come into consideration, we believe that it will be possible to take certain preventive measures, so that a sharp competitive struggle shall not ensue, which would surely be only to the disadvantage of our common interests.

We allow ourselves to offer you the following suggestions—

So to acquire a certain assurance in this direction we suggest that each firm shall place at the disposal of their sales houses that quantity that they delivered over there last year, with 5 per cent added, for this and for the coming year. Since 1912 was a good year, and a margin of still 5 per cent is planned, this quantity will not be too scant. Should the total sale, however, rise still more, it can always be raised, as we can exchange figures quarter yearly and control the stock.

In this manner it can be arranged that no salesman must refuse indigo to a customer whom he is serving at the time, and, on the other hand, that he does not control so much goods that by price swinging he can force possession of that of the others. Furthermore, it should be explained to the sales houses that we can not as yet book sales to them dating after 1916 and that they, should they once be able to do business for which they desire goods after this date, must notify us here beforehand; we would then have to reach an understanding among ourselves.

We are looking forward to your reply whether you agree to these suggestions.

Yours, truly,
BADISCHE ANILIN & SODA FABRIK
RUMPH.

DEFENDANT'S EXHIBIT No. 57.

LETTER FROM FARBWERKE VORM MEISTER LUCIUS & BRUNING TO H. A. METZ.

Hoechst A/M, June 8, 1914.

Strictly confidential.

My Dear Mr. Metz: Herewith I am notifying you, in strictest confidence, that we have decided upon a change in the price of indigo. An official letter to you from the Farbwerke, and from the Badische to Mr. Kuttroff, goes off by mail at once.

Both letters, the wording of which were not previously arranged, go off on the same steamer, so that every one will be informed simultaneously. I will wire the name of the steamer to you in plenty of time so that you can prepare yourself and so manage that you can go out and approach the indigo consumers immediately upon receipt of the letter and to try, on this occasion, to win over something from the Badische trade for our goods by means of a new settlement.

As per our arrangement with the Badische over here, the new price is only to be granted to those customers who make a new four-year contract.

This contract can be made with the present, or if the customer wishes to change, also with a new indigo contractor, and in the latter case the present contractor must deliver the rest of the old contract at the new price and may not make a new contract at a lower

price, the condition for a concession on the price of the rest of the present contract.

Consequently, the new price is only granted to consumers after they have made a new four-year contract, either with the old or with a new purveyor. Whoever makes no new contract must continue to pay the old.

This information is strictly confidential and you must attempt nothing until the official letter is in your possession.

DEFENDANT'S EXHIBIT No. 58.

Ludwigshafen, June 13, 1914.

Kuttroff, Pickhardt & Co.,
New York City.

Dear Sirs:

Indigo price reduction.

We refer to our respects of even date to the Badische Co. regarding cost prices of indigo.

For your information we are sending you a German circular, together with the supplement, "Technik," etc., in order that you may conceive the idea how we carry into effect the price reduction in this country.

The Badische Co. advised us in memorandum of May 26 (I. 730) that Klipstein made trial deliveries of from 50 to 100 barrels to the Amoskeag Manufacturing Co., Bliss Fabyan & Co., and the American Printing Co. Such large quantities can hardly be called trial lots. It goes to show that these firms do not consider themselves obliged to take their entire requirements from us and from Höechst. It will, therefore, be necessary to watch these firms closely and we hope that in future you will succeed in keeping Klipstein away from these consumers.

The considerable reduction of the "R" sorts, es-

pecially of "R B," is thought of as a measure of competitive struggle against hydron blue. We refer to the German circular we are also sending you, which contains all the necessary information. We request an early report regarding the prospects with the new prices at the Amoskeag Manufacturing Co. (combination of ordinary indigo plus indigo R B), and it will also interest us to know if there are any prospects at the American Printing Co., of introducing indigo R B D in place of hydron blue 2 B.

We were unable to make arrangements with Höechst for the carrying out of the price reduction and the renewal of the contracts in the United States, as it is well known that this is not admissible. We only have come to the agreement that each firm should advise their respective American friends that it would be in the interest of the indigo business, if they also were to make the reduction in the selling prices; that is, corresponding to the reduction in the cost prices:

One cent on the selling price for the ordinary sort indigo.

Two cents on the selling price for the ordinary "R" sorts.

There is no change in the situation as talked over with you last January, viz. there is no intention to increase the sales by underselling at the expense of Metz.

Of course, you must also look out that Metz acts in the same manner and does not disturb our possessions. Our request at the time, not to make new contracts extending later than 1916, naturally is today invalid. We hope that this time the campaign of renewal of contracts will wind up without incidents, in order that you as well as Metz may retain each one's possessions.

Very truly yours,

BADISCHE ANILIN UND SODA FABRIK.

DEFENDANT'S EXHIBIT No. 59.

TELEGRAM FROM BADISCHE GERMANY TO ADOLF KUTTROFF.

"From Berlin.
"To Adolf Kuttroff, 128 Duane Street, New York.
"Agents will demand single duty.
"BADISCHE ANILINFABRIK."

DEFENDANT'S EXHIBIT No. 60.

TELEGRAM FROM BADISCHE GERMANY TO ADOLF KUTTROFF.

"From Berlin.
"To Adolf Kuttroff, 128 Duane Street, New York.
"Refrain from selling south.
"BADISCHE ANILINFABRIK."

DEFENDANT'S EXHIBIT No. 61.

NEW YORK, *November 16, 1914.*

MY DEAR BENEFACTORS AND FRIENDS,
Assembled in Hohen Hause, Wilhelmstrasse, 74:

Perhaps by the time when you receive these lines Herr H. A. Metz, of New York, will call with a letter of introduction. I wish earnestly to request you to take good care of him and treat him very nicely. Maybe you will take him to breakfast some time or show him other favors after the American fashion, in the event that Excellenz Richter or Dr. Muller do not do it. I am afraid they will be too busy.

At the same time I call your attention to some-

thing which you will have the kindness to bring before the proper authorities:

In considering all the favors to which Herr Metz is entitled it must not be forgotten that he is a competitor of the other dye works. For that reason I have just cabled you that the bonds covering reexport of dyestuffs are to be deposited with me. Also in allotting ship space for return freight it must be remembered that the other chemical works are to have a word to say. I earnestly recommend that this exportation of dyestuffs be somewhat more favored than has heretofore been the case, perhaps through my own suggestion, as otherwise there is danger that America itself will take up the production. Plans are already being prepared for a high protective tariff, which will be taken up by the Congress which meets in December. As Metz is a Member of the Congress, he is the right man to fight this measure.

On the other hand, the entire production of dyes should not be handed over to him, otherwise he might use the opportunity to eliminate his competitors. He is the real type of the "smart" American, who as a matter of course uses every situation for his own business purposes. Perhaps I may also to ask you specially to bring this to the attention of the proper authorities.

With hearty greetings.

Your respectful admirer,

ALBERT.

DEFENDANT'S EXHIBIT No. 62.

TELEGRAM TO FOREIGN OFFICE IN BERLIN.

Serial No. 432 of March 13, 1915. It is reported to me by Hossenfelder,

Telegram No. 4, that the stock of dyes in this

country is so small that by a German embargo about 4,000,000 American workmen might be thrown out of employment.

BERNSTORFF.

DEFENDANT'S EXHIBIT No. 63.

TELEGRAM.

MILLINGTON BEHREN,
Nine Berlin:

Hamilton Yerkes urgently request preventing all Hoechst and similar shipments. Inform immediately.

CHARLES SUCHARD.

DEFENDANT'S EXHIBIT No. 64.

New York, April 19, 1915.

DEAR MR. HOSSENFELDER (Hossenfelder was acting imperial consul general): Sunday night the following wireless message went to Berlin through the agency of the Deutsche Bank:

"'Hamilton associates Yerkes urgent requests to prevent all Hoechst and similar shipments. Inform immediately.'

"'Hamilton' means 'Embassy,' I am Yerkes. Unfortunately there was no code word for consulate general, so we had to designate you by the word 'associates.' In the stress of business I had no time to ask your assent, as you know we were agreed on the matter.

"The reference to 'Hoechst' is meant to convey at the same time a warning in regard to Mr. Metz. I assume that this is understood over there. I purposely refrained from direct mention of Mr. Metz as

well as a more definite characterization of the dyestuffs, because it had to be taken into account that the American Government will be informed of the contents of the message, both directly and indirectly through the English. For evident reasons it would not be advisable that the advice from official sources here, not to ship dyestuffs and potash, should come to the attention of the American authorities.

"Copy of the letter of the foreign trade adviser of the State Department follows.

"With kind regards,

"YOUR DEVOTED.

"Dr. HOSSENFELDER,

"Acting Imperial Consul General,

"New York."

DEFENDANT'S EXHIBIT No. 65.

[Imperial German embassy, naval attache.
B. No. 5567.]

NEW YORK, *April 28, 1915.*

To his honor PRIVY COUNCILOR ALBERT,

45 Broadway, New York City.

MY DEAR PRIVY COUNCILOR: 1. It is, of course, unnecessary to call your attention to the brilliant article which is reprinted in to-day's Staatszeitung.

I shall be one of thousands who would like to see this article circulated in millions of copies. You will surely find ways and means to do that. Especially that excellent rhetorical question should be exploited whether the United States would indeed have delivered arms to Japan in case of a war with England (under the silent assumption that only a one-sided export of arms would be possible) and should be sent

as far as possible for an express answer to all the pro-British American newspapers.

2. To-day's World contains the inclosed little article on the alleged erection of dyestuff factories in New Jersey by Germany.

In case you can take no steps to prevent an undertaking of this kind, I beg you to state whose else attention I could call to the matter.

With cordial and recognized attachment,

Always yours devotedly,

K. BOY-ED, *Commander.*

DEFENDANT'S EXHIBIT No. 65-A.

EDITORIAL FROM NEW YORK WORLD, ISSUE OF APRIL 28, 1915.

HELPING US OUT.

Two large German chemical and aniline dye concerns are reported to be establishing in New Jersey to supply American demands hitherto supplied from Germany.

There are some singular omissions in the news. So far as known, these German concerns have made no preliminary inquiry about high tariff prospects for aniline dyes or the outlook for a Republican victory in next year's elections. They have not promised to extend their plants here if more tariff protection is given, or threatened to dismantle them if it is not.

Perhaps they are counting on a long war and its continued exclusion of German commerce from the seas. Perhaps they calculate that whether the war is long or short, labor will be scarce and high-priced in Germany for many years. At all events, it is becoming evident that if American genius and enterprise

are not equal to the task under existing favorable conditions of making the country independent of Germany in the matter of aniline dyes, German enterprise, cut off at home by a destructive war, will be glad to do it for us.

DEFENDANT'S EXHIBIT No. 65-B.

LETTER FROM DR. ALBERT TO K. BOY-ED.

APRIL 28, 1915.

VERY HONORABLE CAPTAIN: . . . With regard to dyes, I got into touch with local experts in order to determine what truth there is in the news. According to my knowledge of things, the matter is a fake, inasmuch as our factories have bound themselves erally and by word of honor to do nothing in the present situation which might help the United States.

Many thanks for every suggestion. In case the news in paragraph 2 is confirmed, I will inform the State secretary of the interior.

With hearty greetings.

DEFENDANT'S EXHIBIT No. 66.

OFFICE OF HERMAN A. METZ,
New York, N. Y., April 8, 1915.

ROBERT F. ROSE, Esq.,
Foreign Trade Adviser, Department of State,
Washington, D. C.

MY DEAR MR. ROSE: Referring to our conversation over the telephone this morning, I beg to say that I received letters yesterday from one of my sources of supplies in Germany, the Farbwerke, vorm. Meister

Lucius and Bruening, dated Hoechst a/Main, March 18, in which they state that export permission had been granted by the Government for goods ordered by me before March 1, including approximately 85,000 ampules of salvarsan and neosalvarsan, 40,000 tubes of novocain tablets, approximately 500 pounds of novocain in bulk, 3,000 pounds antipyrin, and various other medicinal preparations, all of which are urgently needed in this country.

Naturally, these goods are not paid for, but they become my property the moment they leave the works or port, and travel at my risk, and I have got to pay for them within 30 or 90 days, after date of invoice according to the terms in each instance.

From Kalle & Co., Biebrich a/Rhine, another one of my sources of supplies, I have a letter dated March 18, also stating that they had received permission from the Government to export 1,250 pounds of dimethylaminophenyl-dimethylicum (a medicinal product known under the trade-mark name of "Pyramidon") which was ordered by me in January. Both concerns state that they regret that, owing to the British order in council stating that goods of "enemy origin" would be seized and the fact that the Dutch Steamship Lines refuse to carry goods of German origin, it will be impossible to ship those goods until some arrangement is made for their safe transportation to this country and that they hope it will be possible to take advantage of the export permit which has been granted to get these goods on the way soon.

This does not indicate any desire on the part of the German manufacturers or the German Government to withhold their products, and it was on the medicinal products that the embargo was made especially severe, so that in each instance special permission to export had to be obtained from Berlin. All

letters I have so far received indicate a perfect willingness on the part of concerns I am in touch with abroad to send dyestuffs and other products if they were sure that we would get them. I know positively that the March quota was ready for shipment when the order in council was issued, and I know that the German manufacturers continued to ship chemical preparations and other products to Rotterdam after the order was issued and until the Holland-American Line refused to carry further cargoes of German origin. A "clean-up" was made on the steamship *Nieuw Amsterdam* of all goods that had arrived in Rotterdam by March 10, and further goods, other than dyes, I know are now stored in Rotterdam awaiting shipping facilities.

I understand that the American steamer *Navajo*, loaded with cotton reached Kirkwall to-day, and if permitted to continue to Bremen will leave Bremen about the 18th or 20th. Furthermore, I understand that the steamship *Carolyn* will sail for Rotterdam in a few days. Allowing about two weeks for her to get there, she ought to leave about May 1. It might be well to have Ambassador Gerard ascertain whether on arrival of these two steamers with cotton either one of them would be allowed to bring out the March quota of dyestuffs which was ready for shipment when the order in council was promulgated. Every pound of this stuff was ordered prior to March 1, and, as a matter of fact, most of the American importers of dyestuffs have got standing orders with the manufacturers abroad for all they can get that is available for shipment ever since the war began, and the orders that were placed are far in excess of what they have received so far or could possibly receive under the restrictions placed by the Germans upon the amount

available for export, which was based upon our normal monthly consumption of 1913.

What proofs of American ownership would the allied Governments require to allow these products, which are so much needed on this side, to come forward? Of course, the guaranty of both Great Britain and France will be necessary to insure their safe passage. I want to point out to you the absolute futility of taking a chance of having the dyestuffs, in case their shipment was allowed by Germany, taken off by either allied power and paid for. The dyestuff dealers here do not need the money and do not want to sell their goods in England or France. They are under obligation to their customers in this country and must supply them, no matter what profit might be paid them for goods detained by Great Britain, and I have no doubt Great Britain would be very liberal in the matter. It would be no compensation for the mills here, however, whose employees would be forced into idleness if the goods were confiscated or even held temporarily to be passed upon by a prize court.

Yours very truly,

H. A. METZ.

DEFENDANT'S EXHIBIT No. 67.

OFFICE OF HERMAN A. METZ,
New York, N. Y., April 9, 1915.

Hon. WILLIAM C. REDFIELD,
Secretary of Commerce, Washington, D. C.

MY DEAR MR. SECRETARY: Referring to our conversation the other day and the various reports appearing in the newspapers, apparently emanating from your department, I beg to inclose herewith cop-

ies of a number of letters from manufacturers, which I sent to Mr. Tumulty at his request yesterday.

I have received all told over 450 answers to practically 1,000 inquiries sent out to the cotton, wool and silk manufacturers in this country, as well as to a few leather, paper, wall paper, color, paint, and printing-ink manufacturers. About 270 of those replying specified the number of employees that would be directly affected, and those totaled 260,000. The balance of those responding did not give any numbers, but said they would be compelled to shut down absolutely within 60 days. Assuming that they had at least as many employees as those that did respond, a total of 400,000 employees directly engaged in these 450 mills that have responded, together with their immediate families, will be affected. As there are between 1,500 to 2,000 such plants in the United States, a total of about 2,000,000 operatives are involved. If only 50 per cent of them are laid off through lack of work, it means a million people will be directly affected.

A number of mills asked me specifically not to mention their names, because they don't want the trade to know how badly off they are for colors; and the conditions arising from the claims of people who say that they have sufficient on hand to last them for a long time and from those who claim they are "going to manufacture" and supply the market, are most demoralizing to the mill men. Some of the mills themselves do not take the matter seriously. The commission houses to whom they sell think it is simply a ruse on their part to raise prices and keep paying those who are bluffing against those who are actually trying to do business and who are afraid of losing orders if they don't meet the buyer's views. The result is that a great many mills to-day are paying largely increased prices for supplies and can not ad-

vance their prices on the finished product in proportion. This holds good particularly for the dyers, calico printers, and color makers, to whom dyestuffs and chemicals are the main raw material.

Today's papers carry a statement, apparently emanating from your department, that six plants had invested $5,000,000 to make dyestuffs. I presume this refers to the steel companies who have changed their coke ovens so as to recover benzol. I am quite aware of the fact that between now and October 1 the various plants that will recover benzol will be able to produce at least 50 tons of benzol a day in excess of what was produced heretofore in this country and even with the small amounts previously produced we exported some to Europe.

Benzol, however, is the very first step toward obtaining aniline colors. The second step is producing nitro-benzol, and then aniline (aniline oil). This is used for making, in connection with betanaphthol and other intermediate products, some primitive colors, and used also largely for dyeing black on cotton, especially hosiery, but has been superseded of late years to a large extent by sulphur blacks. We can probably return to aniline black, however, to some extent, for hosiery. I understand the market price for aniline oil to-day is about $1.50 to $1.90 per pound, if it can be obtained. I understand that those who produce it here are offering "exclusive contracts," in other words, binding buyers not to buy anywhere else for from one to three years on a sliding scale at from 78 cents down to 35 cents and 25 cents a pound, subject to a minimum of a little over 10 cents if the market price falls to that figure. Aniline oil, including a duty of 10 per cent, sold here right along for about 10 cents per pound before the war and came largely from England and Germany. Since the war small quanti-

ties have come from England on special request for export permission, but none at all from Germany. As far as I know none of the producers of benzol or aniline oil intend taking up the manufacture of colors, but several concerns, claiming from one hundred thousand to one million dollars capital, are said to have started plants making aniline colors. Judging by the statements credited to your department, you are in touch with these parties and have assurances made by some manufacturers to you in person. Won't you please, for the benefit of the textile manufacturers who are relying on these statements and whose supplies won't last longer than the next four or six weeks, publish, or at least let the trade know, in some way the names and locations of those manufacturers, stating the products and in what quantities they propose to furnish them and how soon they will be ready, so that the mills can get in touch with them? I will be glad to advise the hundreds who appeal to me of the possibility of obtaining products from such parties whose names you furnish me with. It is something tangible that the textile mills need and not mere statements in the newspapers as to what some one is "going to do." It simply keeps the jobbers and the commission houses on the defensive and injures manufacturers all along the line through false hopes which these reports raise.

It may interest you to know that of the dyestuff manufacturers in this country before the war, the only one who "claims" to have made any progress toward making intermediate products is the one in Buffalo, but strange to say it is impossible for consumers to obtain supplies from him. The concern that really ought to be in a position through its foreign connection and knowledge of how to make these products, the one in Albany, is practically shut down entirely with no prospects of resuming. The two in Newark, be-

sides my own, which, so far as dye making is concerned, is absolutely shut down, are also practically out of business. True, they are all experimenting and hope to be able to get somewhere eventually when they get aniline oil. Not a pound, however, can be bought for less than $1.50 to $1.90 before July, and then only when contracts over definite periods are made.

I give you these facts so you may verify them and give the textile interests a chance to know who the people are that are going to do those things and when. Telling a fellow he is going to have a good dinner and all kinds of dessert next Christmas, when he is starving on Decoration Day, is not much satisfaction, and this is about the position the textile manufacturers are in.

Yours very truly,

H. A. METZ.

DEFENDANT'S EXHIBIT No. 68.

THE CHEMISTS' WAR.

"We fear German efficiency." That is the reason assigned by the editor of the most prominent Anglo-American newspaper of New York for the anti-German attitude of his possibilites. The efficiency of the German nation is indeed wonderful, but instead of inciting our antagonism it should serve as a lesson; it should arouse our admiration, and above all should cause us to apply ourselves as industriously and as indefatigably as the Germans do, so that we should no longer fear them, but emulate and even surpass them. Our task, compared with that of the Germans, should be relatively simple, as we have natural resources superior to those possessed by any other nation; and,

unlike the citizens of European countries, we inhabit a continent which is secure against all aggression.

In no other field has German efficiency proven its superiority more than in that of chemistry. While this was undisputed before the present war, it is no exaggeration to state today that the German chemist has so far contributed as much if not more to the success of the campaign than the strategist, the Army and the Navy, and that therefore the present holocaust may be justly called the chemists' war.

Germany, deprived of all imports by the sea power of England, has been transformed into a self-supporting country by the chemist. This necessitated a readjustment along the whole line. Food for the people and fodder for animals had to be provided within the confines of the Empire. Materials had to be manufactured which hitherto had been imported and substitutes had to be improvised for raw materials, the supplies of which had been cut off by the English blockade.

The most remarkable results have thus been achieved in agricultural chemistry, and nothing has been of greater consequence than the method by which Germany will render herself forever independent of the importation of fodder, for which she was obliged to expend annually $250,000,000. Most of this money went to the United States for so-called concentrated feed—cottonseed-oil cakes, corn oil-cakes and similar by-products—the export of which has contributed largely to the profits of the agricultural industries for our country and therefore to the prosperity of our farmers, especially those of the South and Middle West.

It will be of general interest to describe how this great deed was accomplished. It has been known for some time that in the process of fermentation, that is, the conversion of sugars into alcohol by means of

certain lower orders of plants, such as yeast, albuminous substances are generated by the growth of the yeast. But the amount of such albumen was very small, in fact its formation during alcoholic fermentation was considered most undesirable, as owing to its presence fusel oil and other impurities were produced. About 1910 it was realized, however, that the albuminous matter contained in yeast might be of value as a food for human beings and as fodder. Experiments were at once undertaken in a most systematic and comprehensive way by the institute for the fermentation industry in Berlin, and soon two varieties, a pressed food yeast and a pressed fodder yeast, were obtained which were found to give highly satisfactory results in practical feeding experiments. The only trouble was the small yield of albumen which made the process unprofitable. During the last few months this difficulty has been overcome, and on April 3 public announcement was made of the complete success of this process. The favorable results were brought about by carrying out the fermentation in the presence of sulfate of ammonia as a source of nitrogen, which by the metabolism of the yeast is converted from its inorganic into its organic (albumen).

From 100 parts of sugar by the use of 52 parts of ammonium sulphate 270 parts of pressed yeast have been obtained; indeed experiments have been published according to which 100 parts of sugar furnish 100 parts of water-free dry yeast. Yet even these incredible yields, and the fact that Germany is the largest producer of sugar in the world, would have availed nothing if sulphate of ammonium, the nutrient of the yeast, could not be procured at an economical cost.

But chemical ingenuity also provided a source for this material which is likewise employed very largely as a nitrogen fertilizer. It has always been

recovered as a by-product in the coking of coal, an industry in which Germany leads the world. But largely it has been produced on an extremely large scale by direct combination of hydrogen and nitrogen, as carried out exclusively in Germany. The nitrogen needed in the manufacture of sulphate of ammonium is obtained from the atmospheric air and in this form is converted into albumen by the yeast. We have here the most interesting and most direct transformation of nitrogen from the air into food albumen. Hitherto this conversion has been most complicated. The inorganic ammonium sulphate has served as a fertilizer for bread cereals and those grains and plants which are used as fodder; animals are raised on this, and when slaughtered their meat furnishes a large part of the albumen contained in our food. How complex and tedious this process is appears from the following fact: Cereals and plants required from 6 to 8 weeks for their development; they grow only during about one-third of the year, the months of May, June and July, while their production is restricted by the area on which crops can be raised; the animals require space for their keeping and they must be tended with extreme care.

On the other hand, yeast plants develop very quickly and attain their full growth within a few days. They thrive in any kind of receptacle independent of rain or shine, they need no light and can be grown all the year around.

The production of yeast is not a new departure; in fact large amounts are today produced in the distillery industry, in the brewing of beer, and the manufacture of wine. The yeast formed in these processes of fermentation is a by-product, which after compression is extensively employed in the baking of bread, cake, etc.

In the new fermentation processes, however, the

main object is the production of yeast which is intended to be used as an albuminous food for human beings and animals.

Besides its value as an economical substitute for animal albumen, yeast will be preferred by many people who have an aversion to meat or who consider the slaughter of animals for food purposes cruel and disgusting. Its importance will be further realized by bearing in mind that it affords the vegetarian the required amount of an albumen, which as regards nutritive properties is even superior to meat albumen, since it contains 2 per cent of lecithin, which is of great value as a nerve food and tonic. Yeast also contains vitamines which are so necessary for nutrition and the absence of which in our dietary is the cause of much sickness. Take, for example, Beri beri, a disease which is caused by the eating of polished rice from which the vitamines, which are present in the hulls have been removed. Meat, on the other hand, is said to be the cause of various diseases, such as gout, arteriosclerosis, kidney affections, etc.

As far as the price of this yeast is concerned, it is stated that the amount purchasable with 1 mark (24 cents) yields 904 calories, while 1 mark's worth of beef gives only 623 calories, and that one pound of dry yeast is equivalent to 3.3 pounds of medium beef.

As mentioned above, the economic production of the new food yeast could not possibly have been of such enormous importance if the German chemists had not also provided the nitrogen from the air a new and profitable source for the manufacture of sulphate of ammonium. Hitherto atmospheric nitrogen could be utilized only where cheap water power was available. This was solely the case in Norway, and consequently very large plants were established there in which nitrogen obtained from the air was converted into nitric

acid and nitrates. The cost of power per certain units in Norway was about $4.50 compared with $18 in Niagara Falls. Owing to the existence of inexhaustible deposits of lignite coal in the neighborhood of Cologne and in Anhalt, the Germans are able to produce the same unit at $7.50. Although this price at first sight is higher than that of Norway, it means in reality greater cheapness all around. There is hardly any industrial development in Norway, and almost all chemicals and apparatus must be imported and the finished products exported. As this is not necessary in Germany, where in addition to a highly organized industry there exists the most perfect and cheapest inland water transportation system, the price of $7.50 compared with $4.50 in Norway is actually cheaper.

With this cheap power Germany utilizes the nitrogen from the air not only for the manufacture of nitric acids and nitrates, but also for the production of ammonia, ammonium sulphate, and calcium cyanamid.

Indeed, new nitrogen compounds have been lately discovered which threaten to revolutionize our present system of fertilization. This new industry, to which the war has given the impetus, has assumed such dimensions and has given such unexpected results that the Government requested the German Parliament to grant an imperial monopoly for all these nitrogenous materials. The chemical industries are fighting such measures because it is believed that they would interfere with the development of the new methods. From the documents published relative to this nitrogen monopoly it appears that chemical compounds have been discovered the efficiency of which as nitrogenous fertilizers allows the production of a material suitable as a universal fertilizer. Today nitrogenous fertilizers are employed mainly in two forms, namely, as saltpeter (Chile saltpeter), which is a nitric acid salt, and as sulphate of ammonium, which

is an ammonium salt. It is the task of the intelligent farmer to decide at what time in the season and for what crops one or the other or mixtures of these two forms must be employed. The universal nitrogenous fertilizer which the German chemist has discovered is very likely a new synthetic substance which unites the nitric and ammonia forms in chemical combination and is perhaps more economically produced than nitrate of ammonium, which is already known as such a compound and has found great favor as artificial fertilizer.

That this new scientific achievement will prove of momentous importance appears from the fact that the great chemical works which supply the world with dyestuffs, synthetic remedies, photographic developers, artificial perfume, etc., have entered the field and have become important factors in the artificial fertilizer industry of Germany. The peace negotiations will undoubtedly culminate in the conclusion of commercial treaties between the nations. What an enormous power will be exercised by that nation which, possessing such a universal fertilizer and practically a world-wide monopoly of potash salts, will have something to sell that every farmer in the civilized world absolutely requires!

There will be a big rush for the Teutonic band wagon, and all the ideas of a nation boycott of the Germans or of an ostracism of Germany's traders and manufacturers will quickly vanish in thin air.

In the synthesis of ammonia either pure ammonia itself or ammonium carbonate is obtained, neither of which is suitable for direct employment as fertilizers or yeast nutrient. They must first be changed into sulphate of ammonium, and for this conversion sulphuric acid is necessary. This latter product is obtained in Germany very largely from Spanish ores or from sulphur imported from the United States.

On account of the war there has been a marked advance in the prices of sulphuric acid and the problem arose how to procure the acid necessary for ammonium sulphate at such low figures as to make the use of this material possible. This task was solved in the most ingenious manner. In Germany large quantities of minerals consisting of sulphate of calcium (gypsum) and sulphate of magnesium are found. It was always known that these chemicals in reaction with ammonium carbonate furnish directly ammonium sulphate, but no practical use has ever been made of this theoretical fact. The exigencies of the war, however, caused the testing of this reaction on a factory scale and today, without the use of foreign material and without the trouble of manufacturing sulphuric acid—by a simple chemical transportation—the desired object has been economically and successfully attained.

In their endeavor to free themselves forever from the importation of ores for the production of sulphuric acid the German chemists went one step farther and succeeded in substituting these domestic materials, namely sulphate of barium and magnesium, for the Spanish ores and our sulphur. Sulphate of barium and magnesium are reduced by means of coal to their sulphides, which are decomposed by carbonic acid into the carbonates and sulphuretted hydrogen. The latter furnishes sulfurous acid and sulphur, either of which may be employed for the manufacture of sulphuric acid. And so sulphuric acid is the most indispensable material in all chemical enterprises the war thus taught the German chemist how to render his country independent of foreign trade conditions in this most vital branch of his profession.

Bearing in mind these stupendous efforts expended in the manufacture of artificial foodstuffs, it is interesting to note how, even in Germany where economy is practiced to such an extent, valuable sources

of natural food materials had been neglected in times of peace.

When the English blockade, however, threatened to starve the women and children of the Empire, a careful inventory of the natural resources was taken. It was ascertained that certain plants which had been regarded useless weeds possessed considerable food value. Fourteen wild growing vegetables were found which furnished substitutes for spinach, while five plants supplied excellent materials for salads. But of still greater significance is the fact that nature offered nine varieties of roots rich in starch and affording wholesome aliment for man and beast. These unexpected sources of nutritive material will in the future further threaten our export trade to Germany, which has so largely consisted of foodstuffs.

On the other hand, the following demonstration of efficiency is worthy of report:

Among the visitors to New York on the occasion of the International Congress of Applied Chemistry in 1912 were two professors of the Agricultural High School in Berlin, Doctor Foth and Doctor Parrow, who both are well remembered by their American colleagues.

Scarcely had the German army occupied Belgium and Northern France when Doctor Foth was called there to supervise the agricultural resources of the captured territory, and Doctor Parrow was appointed to the same office in Russian Poland. Both scientists at once took charge of the sugar-beet and potato crops and their utilization in the interests of the invading armies and the civilian population.

We are also exporting large quantities of oil and fats to Germany, especially animal fat from our slaughterhouse industries and cottonseed oil. By a treatment with hydrogen the German chemist transforms cheap grades of oils fatty wastes of all kinds

and, most important of all, the fish oils of the Swedish and Norwegian fisheries into edible fats. Our business in these materials may also be threatened by the cultivation of the sunflower, the seed of which furnishes an excellent oil which is already largely used for food purposes in Russia. As sunflowers grow almost anywhere, sufficient seed might be raised from which oil could be obtained as substitute for our cottonseed oil. For Germany this oil would be of further advantage, as, when mixed with the distillation products of lignite coal, it affords excellent lubricating oils to replace our best cylinder oil, etc.

For this purpose Italian olive oil has already been imported during the war in large quantities, but this traffic is not interrupted owing to Italy's entrance into the war.

As curiosities in the search for foodstuffs we might further mention the attempt of the chemist to utilize the fresh blood of slaughtered animals which contains highly nutritious substances. Long before the war bread made with the addition of fresh blood to the dough was eaten in some parts of Europe, especially in Finland. This tastes like black rye bread, is very nutritious and very economical. It is interesting to note here that during certain religious festivals a confection consisting of chocolate and fresh blood is sold in Naples and eaten by the ladies with great relish.

The agricultural chemist has also undertaken the task of supplying Germany with a substitute for cotton, which can no longer be procured from us. Although it is realized that there are enormous difficulties in the way a great deal has already been accomplished. Paper spun into threads in special machines serves as substitute for cotton and jute in the manufacture of bags, etc., which need not stand heavy wear and tear. For the manufacture of guncotton, cellulose is employed

which is produced from wood pulp by the various refining processes now known. By a preliminary treatment with acid and steam and subsequent solution in liquids, such as Schweitzer's reagent, in alkali-bisulfuric of carbon (viscose treatment) common wood pulp is converted into a highly purified cellulose, which for many nitration purposes is superior to cotton fiber. It has already been known for years that for the manufacture of celluloid certain tissue papers give better results than cotton.

Millions of bales of cotton which might have relieved the congested American market and might have yielded large profits to our Southern farmers, instead of lying in our warehouses or piers, might have gone up in smoke (?) as smokeless powder, if the Germans could have imported them and employed them for the manufacture of guncotton, etc.

Even in war time people must think of such frivolous thing as dresses and clothes, and the German chemists are hard put to improvise substitutes for the ordinary cotton fabrics. Curious to relate they have made marked progress in this respect. The nettle fiber, which was largely used in Europe as a textile material prior to the introduction of cotton, has again attracted much attention. Most interesting reports are being published and patents being taken out for the utilization of the bast fiber of willow bark. Willow boughs are valued as material for weaving baskets. A special school for the cultivation of willow trees—a remarkable demonstration of German efficiency—exists in Graudens West Prussia. Director Brickwedel of this school, about 10 years ago, suggested the use of the bast fiber of willow bark as a textile fiber, since he found it to be very strong and of fine structure. It surpasses hemp fiber and closely approaches cotton fiber in purity and textile strength. According to the patented processes the bark is first spread and dried either by ex-

posure to the air and sun or to artificial heat in a drying room. It is then packed in small bales, which may be kept for years without injury or decomposition. The bark is then treated in an alkaline bath for about five to eight hours, dried and freed from tannins, and then mechanically freed from wooden fibers like hemp and flax. The fiber thus obtained furnishes an excellent substitute for cotton and is especially recommended for surgical purposes, as it possesses great power of absorption. It also furnished an excellent paper.

All these endeavors to substitute cotton may appear ridiculous to us who have been brought up with the idea that "Cotton is king" and that we have been destined by fate to supply this fiber to the civilized world. The farmers who cultivated the madder root and the planters who raised indigo were also inclined to jest when they were apprised of the fact that German chemists had succeeded in reproducing in the laboratories the dyes which their crops furnished, but when the manufactured materials drove the natural products from the markets and left the farmers and planters without a job hilarity ceased.

History may repeat itself and willow bark and nettle or some other substitute raised on German soil may in the near future depose King Cotton. The German chemist has a duty to perform, and with his perseverance and application he does not shrink from any problem however difficult it might appear to outsiders.

The raising of silkworms and the production of silk are also undertaken with great zeal. Mulberry trees, the leaves of which are fed to the caterpillars, thrive very well in south Germany and in the Rhine province. This industry is to be developed not so much to make Germany independent of the importation of raw silk but for the reason that this occupation offers easy and profitable work to war cripples and

invalids, work which can be done in about six weeks of the year.

The chemist has also succeeded in replacing the product of the camphor tree, which before the war had been obtained from Japan and is of so great importance in medicine and in the manufacture of smokeless powders. It is now made artificially in the factory and it has been found that synthetic camphor not only surpasses the natural in medicinal efficiency but that it is of greater purity, a stronger disinfectant, and cheaper, at least as long as war prices prevail.

The German chemist, who has already solved the problem of manufacturing synthetic rubber, will perhaps also tackle the problem of making Germany independent of rubber imports in another direction. The milkweed plant, which belongs to the Asclepias family, furnishes a latex which resembles that of the cheaper grades of rubber. Although the amount of rubber is small and the quality poor, yet the chemist need not despair if he remembers that the sugar beet first used in sugar making contained only 4 per cent of a very superior grade of sugar, while today it furnishes 22 to 24 per cent of sugar of such high quality as to be indiscernible from the first cane sugar.

Great ingenuity is displayed by the metallurgical chemist in replacing copper by other metals. As a result, the consumption of copper for use for war purposes and for the arts is considerably reduced. With its inexhaustible supply of iron and steel and its wealth of zinc and a domestic supply of copper amounting to an annual production of 40,000 tons Germany is in an excellent position to manufacture substitutes for copper. Gun and rifle cartridges and the fuse heads of grenades are made of soft iron with a small percentage of copper and zinc. Buttons, button facings for helmets, belt buckles, which were formerly

made of brass, are now made of alloys free from copper.

In the electrical industry iron and steel wire are used exclusively. Long-distance electric power transmissions are being conducted over steel cables, and cables are manufactured of aluminum.

In machinery construction and journal bearings brass is entirely replaced by steel and iron. Instead of massive bronze, hollow bronze castings, or iron or steel castings coated or covered with bronze are employed.

Next to steel and iron, aluminum and magnesium play a prominent part as substitutes for copper. It has been found that an aluminum-magnesium alloy possesses great advantages over the latter as an electric conductor. Magnesium is said to be useful for many purposes for which aluminum is being employed today. This is a very important discovery, because Germany has enormous supplies of magnesium chloride, a by-product of the potash industry, which has been considered worthless up to now. Two large factories, started during the war, are now producing magnesium.

While magnesium may thus be obtained from a domestic source, aluminum has been hitherto made from beauxite, a mineral imported from France. The necessities of the war forced the chemist to look for a domestic raw material for this important metal. He now uses a cheaper grade of beauxite found in Carinthia, Dalmatia, and Hungary. But more wonderful still, he has succeeded in extracting from cheap clays, which are found in great abundance throughout Germany, a pure aluminum which serves as an excellent raw material for the manufacture of aluminum. Two factories are working these processes, and Germany will remain forever independent of these foreign countries, Switzerland and the United States, upon which so far it has relied for supplies of this metal.

Long before the war varied uses were made of aluminum instead of copper, and in recent years the latter has successfully challenged the heavier metal in almost every branch of electrical engineering.

According to a statement in the London Times of January 15, 1915, aluminum has been employed on most of the more important power transmission lines of recent years, the two largest power plants in the world being equipped with aluminum conductors exclusively, one alone absorbing nearly 3000 tons of the metal. Aluminum is also used largely for short distance power distribution in central stations, railways, etc.; the whole of the feeder connections in the new Westminster (London) power station, for instance, consists of aluminum, while the entire insulated feeder system of the Paris tramways is made of the same metal, the latter absorbing several hundred tons.

It has been estimated that in America 20 per cent of the total output of aluminum is utilized for electrical conductors. The English War Office ranks among the principal consumers of the metal for this purpose. It is of interest to record that Captain Scott of Antarctic fame, employed aluminum wire for the portable telephone installation which he took with him to the South Pole.

Actual implements of war in the manufacture of which the chemist exhibits his remarkable ingenuity are the various kinds of gun powder, explosives and primers used in cartridges, grenades, shrapnels, bombs, torpedoes, etc. Each of these instruments of destruction requires special grades and mixtures of smokeless powder and of high explosives, such as picric acid, troty (T. N. T.), etc. All these materials are produced from nitric acid on the one hand and cotton, carbolic acid and toluol, on the other.

Nitric acid is generally prepared from Chile saltpeter and sulphuric acid, but in Norway, as described

above, it is made from nitrogen of the air and in Germany from ammonia and calcium cyanamide, which themselves are obtained from the nitrogen of the air.

These recently developed sources assure to Germany an unlimited supply of nitric acid not only for all war purposes but for general industrial use.

Germany has also an inexhaustible supply of benzol and toluol owing to her vast coking industries, in which these materials are recovered as by-products. As regards cotton, however, there is a great deficiency and, as stated before, the various kinds of refined cellulose and paper must now serve for the production of smokeless powder.

In view of the fact that this country is furnishing vast amounts of ammunition to the Allies, it may be instructive to describe how this export has affected our legitimate chemical industries. How great the injury inflicted is the following instances will show: Nitric acid, which we make from Chile saltpeter and sulphuric acid, has advanced from 3½ cents per pound to 14 cents and at present cannot be bought at all.

The same is true of sulphuric acid. In fact, there is such a demand for this acid that one manufacturer of legitimate chemicals is compelled to ship it in tank cars from the Pacific Coast and pay for goods worth $15 a ton $30 in freight.

The havoc thus wrought in our industries is irreparable. Benzol and toluol, which are the most important starting materials for the production of dyestuffs and synthetic remedies are unfortunately also employed in the manufacture of high explosives, and therefore at present are not available for the needs of humanity.

Benzol, which cost about 25 cents per gallon before the war, now costs $1 per gallon, and toluol, which was always cheaper than benzol, is sold at present at the exorbitant price of $5 a gallon.

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Benzol furnishes phenol, which in turn is converted into picric acid by nitration; from toluol trinitrotoluol, which as an explosive is superior to picric acid, is derived in the same manner. Phenol, our most common, effective and cheapest disinfectant, has become well-nigh a luxury. While previous to the war it sold at about 9 cents a pound, it now fetches $1.50 per pound.

The prices of trinitrotoluol have been the subject of parliamentary inquiries in England, from which it appeared that the product was sold to the English Government at $1 per pound and to the French and Russians at $1.35 per pound. Even at the cost of $5 per gallon of toluol, meaning about 65 cents per pound from which 3 pounds of trinitrotoluol are produced, these prices afford enormous profits to the American war brokers, because 1 pound of trinitrotoluol only costs about 30 cents to produce. The poor Allies, France and Russia, thus paying him $1 clear profit for every pound of the much desired trinitrotoluol.

However gratifying such profits might be they become insignificant, and in fact turn into heavy losses, when we consider how our legitimate industries are suffering. For every working man profitably employed in the manufacture of arms and ammunition there are at least 100 idle laborers in the textile industries.

For the one firm of J. P. Morgan & Co., the huge war contract profits of which have been repeatedly and unfavorably criticized in the English Parliament, there are thousands of southern bankers whose money is tied up in unsalable cotton. The profits in our exports in arms and ammunition are wiped out by the vast loss of money due to our inability to import dyestuffs, potash salts, cyanide of potassium, sugar-beet seeds, etc., which he hitherto bought from Germany and of which our farmers, our textile industries, our miners are so badly in need.

How seriously our manufacturing and trade interests are threatened appears from an excellent editorial in the New York Times, of July 12, 1915, from which the following is quoted:

"Imports consist principally of goods which enter directly into manufacture, remanufacture or industrial consumption, all requiring labor in some form, so that when imports fall there must be a corresponding unemployment of labor.

"The United States has suffered a greater loss on account of the war than any other neutral nation. All that can be said of the profits arising from the trade in war munitions is that they somewhat offset the enormous loss directly owing to the same cause. The profits of the war trade are theatrical, and they fall into a few hands and are advertised more than they deserve to be. The greater loss falls upon trade and industry at large. There is probably not a wage earner in this country who has not at some point of contact adversely felt the war, either in what he earns or in the price of what he buys, or both. Investors feel it much. The rise in the rate of interest abroad is a direct hardship to them, because it affects the rate of interest here, and as that rises the market value of old securities fails. Credit by hundreds of millions is extended to the Allies, in order that they may buy here. This credit might otherwise be going into works of development at home, works which in their construction would create a big demand for labor and which, when finished, would be permanent additions to the wealth-producing machine of all the people.

"These things are so obvious that if it were put to a vote of commercial-minded people to continue or end the war, purely as a business matter, even the manufacturer of war munitions would undoubtedly vote with all the rest to end it. Why? Because the profits from war contracts are fickle, whereas just the

normal growth of industry in time of peace is enough for the imagination and capital of the American people to cope with. To argue that the United States has a selfish interest in this war is to betray either ignorance or prejudice. We would much rather sell Europe the goods normally consumed in time of peace and take in payment therefor, not gold, which we do not need, nor credit, which we could use ourselves, but other goods."

What a strong argument for an embargo on all exports to all belligerent nations, which, as everybody concedes, would end the war more quickly than any other measure. The fearful unemployment of our labor and the great losses of our trade and industry at large can only be prevented by a quick end of the war.

No discussion of this subject would be complete without a mention of the most modern instruments of war evident by the chemists, namely, the poison-gas bombs, the fire liquid and the incendiary bombs.

At about the middle of last February the war correspondents reported that the French were using a material called turpinit, after its inventor, Turpin, which was described as a most deadly weapon. It was said to asphyxiate the soldiers in the trenches and its explosion near a herd of cows killed the animals so instantaneously that though dead they were found in a standing position presenting all the appearances of life. The dead soldiers in the trenches also remained in the attitudes which they had assumed at the very moment they were overwhelmed by the poison gas.

The gas used seems to have been a nitrous oxide compound similar to that employed in medicine as an anesthetic.

About the end of April, the Germans began to use poison gas which according to the journalistic reports appears to be liquified chlorine.

Nothing has as yet been published about the fiery

liquids which the belligerents are using, but concerning the composition of the incendiary bombs dropped upon London, a coroner's inquest gives the following details:

"The bombs contained an explosive called thermit. It gave off enormous heat, as much as 5000, and set everything on fire that it touched. Thermit is a mixture of powdered aluminum and magnetic iron oxide used in welding iron and steel and in repairing broken steel castings. When this mixture is ignited, the oxygen leaves the iron and combines violently with the aluminum, producing a slag which rises to the surface, the molten steel sinking to the bottom. The heat evolved by the reaction is enormous and a temperature can be obtained second only to that of the electric arc."

DEFENDANT'S EXHIBIT No. 69.

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THE NEW CHEMICAL WARFARE.

By JULIUS STIEGLITZ

A striking feature of the great war is the prominent part played by the natural sciences in its inception and its progress. The major nations on each side are bringing to bear upon the problems of offense and defense, of supplies of foods and other necessities, upon the preparation and preservation of their man power, all the vast resources of scientific knowledge and research which the last hundred years have given to our civilization. Nearly all the sciences have been called upon to render important service, but it is not surprising that the leading rôles have fallen to the two fundamental natural sciences—physics, the science of

the transformation of energy, and chemistry, the science of the transformation of matter.

The public was not unprepared for the great feats of the physicists: their mastery of gravity in the magnificent development of the aeroplane, their mastery of the buoyancy of the sea in the modern submarine, their masterful use of light in observation and range-finding methods of remarkable precision, and their impressive control of all forms of sound transmission in wireless telegraphy and wireless telephony and in submarine detectors. All these have been rapid developments of inventions with which men have been familiar in earlier, cruder forms and which were easily understood. But there is little question that the leading part played by chemistry in the war in an almost infinite variety of ways came with a shock of surprise to the public, and for the first time in history roused men to a realization of the power and resourcefulness of this fundamental science. Chemistry is a difficult science; its greatest triumphs are based on the application to given problems of its theories and laws concerning those invisible, sub-microscopic worlds, the atoms and molecules, of which matter is composed. The high powers of scientific imagination controlled by rigorous logic, which makes the intangible, ultimate particles realities to the chemist, appeal to comparatively few men who do not devote their whole lives to the science. Consequently, the achievements of chemistry are commonly accepted as completed results, while the processes by which they are obtained still have for the public much of the air of that mystery which shrouded the efforts of the alchemists in the Middle Ages.

It is no exaggeration to say that chemistry made this war possible in its very beginning and is now primarily responsible for the prolongation of its terrible ravages. There is no question that without the recent development by her great chemists, especially by Pro-

fessor Haber, by Professor Ostwald, and by Dr. Caro, of methods of converting the atmospheric nitrogen on a large scale into ammonia and nitric acid, Germany would not have dared to open the war in 1914. It was these discoveries that insured to her ample and constant supplies both of explosives for the battlefields and of fertilizers for her farms for an indefinite length of time. The Haber process alone has been estimated to have produced in 1917 no less than 500,000 tons of ammonium sulphate as against a yield of 60,000 tons in 1914, and the total yield of nitrogen products obtained from the air in Germany in 1917 has been estimated at 1,600,000 metric tons! Without this aid, in the face of the possibility of Great Britain's control of the seas and the cutting off of supplies of nitre and food, Germany would have been compelled to stake all on the chance of a speedy conquest, such as she failed to achieve in 1914 as a result of the Battle of the Marne.

With chemistry thus a vital factor in the very inception and planning of the war, it is not a matter of surprise to find in its progress that the power and resourcefulness of the science of the transformation of matter should have been drawn into the conflict to an ever increasing degree, until at last we have chemists at the very battle front waging war on a scale never witnessed before in history. Twenty per cent of the shells now fired on the western front, it is estimated, are charged with chemical poison or irritant rather than with shrapnel. Besides this direct participation in the actual fighting, chemists behind the lines are the "key men" in huge industries, in part supplying the warring armies with munitions, in part meeting the more peaceful but pressing needs of the civic population for articles which before the war were imported from foreign and, especially, enemy countries. In addition to contributing thus directly to the demands of

the war, chemistry has been called in a number of imperative ways to the aid of her sister sciences in the solution of war problems. Within the limits of this article, it will be possible only to touch upon the most striking of these activities in which chemists have been engaged, especially in our country's own relations to the war.

Medicine is doing wonders in protecting the millions of men in arms against disease in camp and trench, which in previous wars was prone to count more victims than did the battlefield. The science is writing an even more wonderful record in saving life and limb from the carnage of the long battle fronts. To medicine chemistry is giving its antiseptics and disinfectants, iodine, phenol and bichloride of mercury, chloride of lime and formaldehyde, as well as the modern preparations of Dr. Dakin, derivatives of hypochlorous acid, made to have a maximum disinfecting and antiseptic effect with a minimum of injury to the tissues. To medicine, too, chemistry must contribute on a scale never before demanded, the anaesthetics for the operating tables of the base hospitals, a shortage of which in the early stages of the war caused so much needless suffering.

Here we have an excellent instance of the great possibilities of the science. Cocaine, found in the leaves of erythroxylon coca, which was first used as a local anaesthetic, has the great disadvantage that it is dangerously poisonous, and its use led occasionally to fatal consequences. Moreover, the supply was limited and its cost often prohibitive for all but the wealthy. A profound study by chemists of the arrangement of the atoms in the molecule of cocaine gave the world the plan key for the preparation of similar, but simpler drugs, which can be made in any quantity from coal-tar products and which, above all, show far lower degrees of toxicity than cocaine. Thus, one of the best

of these products, procaine (the new official name of the drug introduced as novocaine) is only one-sixth as toxic as cocaine and its use is practically devoid of danger. Again, chemistry must supply medicine with its anodynes and hypnotics, such as chloral, sulphonal, trional, and barbital—the official name of the drug introduced as veronal. These are all products of the ingenuity of chemists in devising means to an end; and in barbital, which is closely related to substances like uric acid to which our bodies are accustomed, we have perhaps the least harmful of the agencies for bringing sleep to the sufferer while nature exerts her healing powers.

In the face of the fast disappearing margin of safety in the food supplies of the world, final success or failure of the warring nations may rest with the botanist, under whose guidance should be placed the effort to produce a maximum yield of food despite a shortage of men. To this vital campaign chemistry is giving the lore of the composition of the soil, the recipes for fertilizing it properly with potash or phosphate, with nitrate, ammonia, or lime, in order to make possible intensive cultivation. There is no exaggeration in the statement that German chemists have saved their country from the alternative of starvation or surrender by the aid they have rendered agriculture in supplying it with the thousands of tons of ammonium sulphate and nitrate prepared from the atmosphere by the processes of their great chemists. When parasites threaten the growing crops or a blight attacks the garnered grain, fruit, or vegetable, it is again to the chemist that the botanist is wont to turn for his cyanides and arsenicals, copper salts and sulphur mixtures. Finally, the efforts of the botanist in control of agriculture must be supplemented by the chemist in perfecting methods of preservation, and especially of desiccation of foods, which in one operation could re-

lieve difficulties of transportation, of storage, and of preservation.

To the physicists chemistry has supplied as needed, indispensable materials, without which their brilliant achievements would probably have been in large part impossible. The keenness and accuracy of vision of the modern range-finders, of telescopes, field-glasses and cameras—the eyes with which physics has equipped modern armies and fleets on the sea and in the air—depend on the preparation by the chemist of optical glasses of purest quality and fine adjustment in composition to a great variety of needs. It is well-known that this problem of optical glass was one of the most serious of the many confronting us when we entered the war, and a very brilliant and rapid solution was worked out by a staff of chemists under the able direction of Dr. Arthur L. Day, whose success is destined to be remembered as one of the great achievements of American scientists in this war.

Again, the modern aeroplane would collapse under its load of pilot and observer, of armor and ammunition, did not chemists supply those cunningly devised alloys which combine greatest strength and toughness with a minimum of weight. In fact, every single component of the aeroplane and its equipment has been made the subject of intensive chemical study, designed to meet the new conditions of strength and lightness, power and compactness, resistance to vibration and to the moisture of the clouds and the frigidity of the skies. The fuel of the engine, the lubricant of its parts, the metal of the engine and of the framework, the material of the wings and of their coating, all these are chemical problems, still engaging the attention of investigators who would improve this vital weapon of the air. No doubt, we all regret that the chemists by stored oxygen, by reagents absorbing carbon dioxide and producing oxygen, by the storage of energy in

electric batteries, have kept the submarines, an invention of the physicists, from suffocating in their own foul gases in the depths; but there is comfort for us in the thought that our own submarines may profit by these discoveries.

If we turn now from the services of chemistry in support of the important war work of other sciences, to achievements wholly her own, we have, first, the more peaceful and beneficent duty of chemists to supply the people of this country with chemicals hitherto imported from abroad. Three typical and important illustrations of these tasks must suffice: the providing of drugs for the health of our people, the manufacture of coal-tar dyes for our textile, leather, and related industries, and finally the production of potash for farm and factory, the supplies of which were to a great extent cut off from us when commerce with Germany ceased. These three great tasks of chemistry have been selected because it is important for us to realize that it is our duty to free our country for all time, if possible, from dependence on foreign countries. We must have chemical independence in peace if we wish to have it in war, and if we wish to avoid any repetition of the grave perils to which the health of our people, the stability of our industries, and the productiveness of our farms were exposed by our situation at the outbreak of the war.

It is a pleasure to be able to summarize the situation in regard to drugs, and especially in regard to the so-called synthetic or artificially produced drugs, which as specifics are in many instances superior to any natural product, by saying that the worst is over. Almost all the essential drugs are now being manufactured in the United States, and in a very few weeks the shortage that has existed will be a matter of the past. Thus, Ehrlich's famous specific salvarsan, officially known as arsphenamine, is today being manu-

factured in Philadelphia, Brooklyn, and New York on a scale sufficient to supply the army, the navy, and the public with an article which is superior even to the original German brand. It is also cheaper today than before the war as the result of conditions imposed by the Federal Trade Commission in the issuance of licenses for its manufacture. The sufferer from gout may have his phenyl cinchoninic acid to clear his system of uric acid, the victim of insomnia his diethyl barbituric acid (barbital or veronal); and for the patient on the operating table or in the dentist's or oculist's chair, procaine (novocaine) is now being made and soon will be available in the quantities needed.

The situation has been acute, and "Bulgarian operations"—operations without an anaesthetic—had become all too common according to reports from hospitals. Why should we ever again expose ourselves to such unnecessary infliction of suffering upon the patient? The Federal Trade Commission is charged with the duty of issuing licenses for the manufacture of drugs under enemy owned patents, and it has taken hold of the problem in a broad and constructive spirit, with the object not only of encouraging manufacturers to meet present needs but also of helping them to build up an American industry that may continue after the war. Accordingly, licenses are being issued not merely for the period of the war but for the entire life of patents, and new official names are being given to important products, so that after the war the market may be open to all and the public may benefit by the existence of several sources of supply in place of an exclusive one.

A most encouraging sign of our future independence in this field, which must include freedom from foreign patents if it is to be a permanent and worthy independence, lies in the research that is going on to discover new and, if possible, better remedies than

those made under foreign patents. Even in this short time, encouraging results have been obtained. One American house has invented a local anaesthetic, apothesin, which, according to the investigations of eminent surgeons, may be safely and effectively used in place of the toxic cocaine and as a substitute for procaine, and the Rockefeller Institute has reported most promising progress in the development of a less dangerous and much cheaper specific than arsphenamine.

In regard to the manufacture of coal-tar dyes to take the place of those formerly imported from Germany we find, according to the report of Secretary Lane, that at the outbreak of the war in 1914 we had five or six manufacturing houses producing dyes and that we now have over ninety such concerns, besides a hundred firms producing so-called "crudes" and "intermediates," from which the dyes are ultimately "built up." In a recent conversation, a former representative of one of the great German manufacturing establishments—an American of unusual ability and keenness of vision—told me that in his opinion Germany has lost forever the great bulk of her trade in dyes with us. We are now making the blues and the blacks and other plain colors in as good quality as they could be imported. It is especially in the field of the fancy dyes—for instance, the fluorescent dyes—that we have as yet done little more than make a beginning. Whether we can develop the production of these finer dyes, or indeed hold our own in the manufacture of the more common ones, involves a very important issue for the country.

The total value of the dyes is not so very great—a fact which has been too often over-emphasized by men who apparently would discourage dye manufacturing in this country—but the value of the fabrics on which dyes are used is enormous. There is little rea-

son to doubt that after the war Germany will make a great effort, perhaps not to recover at once her commerce in dyes, but rather to gain a great initial advantage by selling fabrics colored with her best and finest dyes in the markets of the world. A wise and liberal policy on the part of Congress in encouraging capital investment in this field by protective duties until methods of manufacture on a large scale and outlets for the utilization of by-products have been properly developed, will be the decisive factor in making possible future American independence in dyes. Many of us remember the violent outcry against the duty on tin plate when this duty was first imposed—and yet this duty led to the development of the huge industry which has supplied us during the war with the tin plate we needed. No sensible individual would care to contemplate what our situation would have been if we had been obliged to start an infant tin plate industry at the outbreak of war. Let us at least have time to develop in the same way a great and independent coal-tar dye industry to supply us in peace or war with dyes as well as the synthetic drugs we need more urgently even than dyes; for the same plant that converts the benzene and the toluene, the anilin and the toluidin of the coal-tar into flaming colors or into pain-soothing or disease-curing medicinals, can also convert in war time these crude products into the all-powerful T. N. T., picric acid, and similar "high explosives."

The potash problem is perhaps the most important industrial problem which chemists must solve for our country. Germany has in the Stassfurt deposits the greatest easily mined potash supplies in the world. Some of her ardent patriots are already boasting that after the war Germany will be in a position to dictate to the rest of the world exactly how much of this invaluable fertilizer each country may have, or, in other

words, exactly how productive the wheat, corn, and cotton fields of a country will be permitted to be. This is not altogether a vain boast. At the lowest estimate Germany would have in her hand a trump card by which all agreements on the part of her enemies as to after-the-war trade embargoes and all resolutions by our own chambers of commerce not to import goods from an imperialistic Germany might be set at nought. We must recall that even before the war, the German government regulated and limited the quantities of potash which could be exported. How much more readily will she now avail herself of her potash supplies to insist on liberal terms for trade after the war and for the materials she herself stands in sad need of! The value of such a controlling position in regard to this necessary fertilizer can only be destroyed if we and other nations succeed in making available other great potash supplies at before-the-war prices.

The United States has ample quantities of potash in its mineral resources, but most of it is locked up in silicates like feldspar, from which it cannot be leached by water—as can the potash in the Stassfurt deposits—and which is so resistant even to acid that at present the recovery of potash from feldspar is expensive and possible only as a war enterprise. We have potash in salt lakes like Searles Lake in southern California and the Nebraska Lakes in northwestern Nebraska, in the sea-weeds of the Pacific Coast, in the alunite deposits of Utah and the flue dust of cement mills; and we are now supplying from sixty to seventy per cent of the country's normal needs—but at war prices, prices which the farmer and manufacturer would refuse to pay if a trade agreement with Germany should bring in a cheaper product, for which she would try.

In the development of our own resources surely lies the greatest problem for the ingenuity and the sci-

entific ability of the American chemist. Increased exploitation of our salt lakes, more scientific methods for the purification of their product—which in important instances is contaminated with borax, a poison for the soil—a careful survey, with the proper chemical analysis, of the potash content of waters of the United States and of Mexico, and attempts, with the aid of geologists, to locate the mother beds from which the potash is derived in these lakes, and, finally, continuous effort on that hardest of all the problems, the economic extraction of potash from our abundant feldspars, represent the most promising lines of work in this field. Chemists have a great classic precedent for bending their best energies to such problems, for van't Hoff, the great Dutch chemist, perhaps the greatest chemist of the generation that is now passing, devoted some of his last years and his fine command of the science to one of the most difficult of the Stassfurt problems. By his solution the potash in the mineral carnallite, a double salt of potassium and magnesium chlorides, became available as pure potash salt.

In chemistry "behind the lines," we find, in the first place, our great steel industries meeting a demand for steel for guns and shells, for ships and for armor, for the innumerable accessories in buildings, railway equipment, and machines, a demand greater than at any time in the history of the world; for the steel industry is simply our greatest chemical industry, consisting of a series of chemical operations carried out on a huge scale. From the assaying of the ore at the mouth of the mine and in the yards of the mills, from the regulation of the coking oven and the closest inquiry into the composition of every ingredient mixed with the ore in the furnaces or with the crude iron, through the supervision of manufacture by specimens drawn off and sent to the chemical laboratory for rapid tests, to the final stages of its purification, steel is the

product of chemical control and investigation. The chemist's knowledge of how the properties of steel can be modified as to toughness or hardness, elasticity, temper, and resistance to heat and to cold through the cunning admixture of other components, has been used as never before to give a longer life to great guns, to add to the resistance of armor, to preserve the cutting edge of high-speed tools working without loss of efficiency at temperatures at which ordinary steel would melt like butter on a July day.

Side by side with steel stand the explosives for the millions of shells we are making. Thus the best of modern explosives, trinitrotoluene or T. N. T., is being manufactured from toluene with the aid of nitric and sulphuric acids at the rate of many tons per day. The power of this explosive was never shown in a more tragic and overwhelming manner than in the recent destruction of Halifax, which was brought about by the explosion of a cargo of T. N. T. in the harbor. Other high power explosives, picric acid or trinitrophenol, gun cotton or nitrocellulose, nitroglycerin, the explosive ingredient of dynamite, and nitrogelatin, are being manufactured on a colossal scale under the direction of expert chemists. Let the compounding go a bit too fast and temperature control be lost, then the giant powers inevitably pass from the control of man, whose only safety lies in flight from the approaching volcanic upheaval.

For the scientist all of these high explosives are substances whose ultimate molecules are extraordinarily unstable, because they contain in closest proximity within each molecule the combustible component represented in ordinary gunpowder by charcoal and sulphur, and the oxidizing component represented in black powder by the nitre. Or, in more modern terms, these explosives contain huge quantities of electricity, in the form of electrons ready to leap within each tiny

world like a flash from atom to atom and, when they do let go, producing gases that can raze cities and remove hills by the energy of their quick expansion. But "that is another story," to which I have referred only to emphasize that it is through our knowledge and control of this ultimate structure of matter that chemistry can transform at will the same crude material toluene into a destructive giant like T. N. T. or into the fairies of modern realism—hypnotics, anaesthetics, and other curative agents.

Upon the chemist also falls the duty of insuring a constant stream of supply of the basic materials from which these high explosives are made. The manufacture of sulphuric acid is in itself a vast industry, working at its utmost capacity and seeking every available source of its own crude material, sulphur. For the production of nitric acid we are still dependent on the nitrates of Chile and Peru, but at the end of last August our government at length made a definite start on the erection of plants for the production of nitric acid from the atmosphere. Similar factories in Germany, as I have already said, have kept her supplied with this absolutely necessary material, without which she could not have faced the possibility of a prolonged war.

Along the Atlantic coast huge plants for the manufacture of alcohol from molasses and other cheap fermentable materials, have risen as war industries. From the alcohol acetic acid is obtained by oxidation on a scale which produces in a single plant a quantity approximately equal to the vinegar made in the world the year before the war; and the acetic acid in turn is converted into acetone for the munition manufacturer. Similarly, the needed production of toluene and benzene for the high explosives has led us under the guidance of chemists to begin to recover the by-products of our coke ovens, by-products which formerly went to waste in smoke to the amusement and hardly sup-

pressed scorn of the European chemist. From the recent report of the Secretary of the Interior we find that this industry has doubled its capacity since 1914, but that half of our coke will still be made this year in the old beehive ovens, from which the coal-tar, the benzene, and toluene so urgently needed for increasing the output of high explosives, escape into the air. So precious are these products that our larger gas plants are introducing, with the aid of the government, expensive machinery for the collection of the three or four drops of benzene and toluene which are found in every cubic foot of gas, the total quantity thus to be recovered running into the millions of gallons. If the critical situation of the food supply of the world and the war weariness of the fighting nations do not bring the war to an early close, a decision probably can be forced only by the side that can hurl against the enemy the greater number of thousands of tons of high explosives. A maximum production to the limit of our capacity by a rapid extension of the modern coking oven to all of our coking plants would, therefore, prepare us for an attempt to duplicate on the western front in Europe some such tremendous effects of T. N. T. as were witnessed in the Halifax disaster.

In passing, we may ask what can be done with all these by-products of the gas and coking plants after the war. Benzene, toluene, and the other coal-tar ingredients will no doubt be a drug on the market; but chemists are continually discovering new uses for these materials. Moreover, for dyes and medicinals they are being used on an ever increasing scale in the manufacture of modern plastics, like Dr. Baekeland's bakelite, a condensation product of phenol and formaldehyde, like redmanol and condensite, which have found innumerable applications. These range from the preparation of finer articles, like the plates for phonograph records, to the manufacture of massive insulating

blocks and the manifold other insulating devices needed by the electrician. With the great excess of supplies of coal-tar after the war we may also expect to see a rapid extension of the applications of these useful inventions of modern chemistry, possibly to articles of furniture, flooring, and similar household appliances.

The part which chemistry has in the battle-line itself is perhaps the most interesting and absorbing chapter in the history of the war so far as it is being written by chemists; it is also the most horrifying and depressing, and for very obvious reason it can be written in detail only after the war is over. When Germany let go the first wave of poison gas in contravention of all international agreements, it is said that the British general in command wired to London that if relief were not sent within three days the whole British line would be compelled to retire. This is a measure of the intolerable suffering of the first victims of this treacherous mode of attack, which has been justified in the eyes of the German public only by the claim that the French had first used chemical "stink-pots." To the credit of the co-ordination of science and government in England it is reported that within thirty-six hours a million and a half of the first crude but sufficiently effective gas masks were delivered at the front—simple gauze affairs saturated with absorbent (probably some alkaline liquid) for the dread chlorine gas of the enemy.

Since that day chemical warfare has developed rapidly on both sides, offensively and defensively. At first it was simply a matter of a "gas wave" propelled by the wind and rolling over the land from trench to trench; but this mode of attack was too dependent on the whims of the shifting winds, and chemical warfare very soon had recourse to the hurling of shells loaded either with a deadly poison or with irritants for the

eyes and all exposed mucous membranes. It is estimated that on the western front every fifth shell now fired is loaded with chemicals, which are held in much greater fear by the men in the trenches than shrapnel or bomb. Most dreaded of all, however, is the last form of chemical attack, the attack by liquid fire, against which there is no defense except speedy flight or retirement and the species of defense which lies in the fact that the attackers in flame warfare are usually easily detected and rapidly "picked off."

It is best on the whole not to name the materials used in this savage business. Some of my readers may recall the incident in a London murder trial when a chemist was asked whether all poisons could be detected, and replied "all but one." When the question —"which one?"—was next put, the wise judge instantly forbade the chemist to reveal the dangerous secret. A few of the facts, nevertheless, concerning the materials used in chemical warfare have already received such wide dissemination that they may be mentioned here. Chlorine was the first gas used, a violent irritant for all mucous membranes and especially for the lungs, as every student in chemistry has experienced at some time or other. Chlorine is still much employed both for gas waves and in bombs charged with the liquefied gas under high pressure. Indeed, the manufacture of chlorine on a very large scale is becoming speedily one of the great munition industries of the United States. Even more terrible than chlorine is phosgene, a combination of chlorine with that other deadly gas, carbon monoxide, which is produced in a coal or charcoal stove when the glowing coal has an insufficient supply of air for complete combustion. The specific gravity of phosgene is greater than that of chlorine, and it has been largely used, often mixed with lighter and more poisonous gases, for the gas wave attack under the favor of the winds. Even a single

whiff is oppressive to the lungs for a day. It will be better to say nothing about the nature of the ingredients carried by shells intended to scatter poison or irritant among the ranks of the enemy. Some of them are so deadly that two small whiffs are sufficient to cause death, others so irritating that they are blinding or cause such edema of the lungs that men are totally incapacitated.

Against this dread offensive chemical warfare, after the first surprise attack, effective defense has been developed on both sides by masks containing suitable absorbents for the purification of the air which is inhaled. The nature of the absorbents is known to many, but in war time it seems wiser not to be specific in these matters. It should suffice to say that the most important quality which a good mask must have is to absorb a great variety of poisons with a speed which will allow the strenuously working soldier to inhale at least thirty litres of air per minute. This represents a tremendous rate of flow, and only the best, most porous, and most active materials are of any value. Chemical officers in the camps are teaching our men, by object lessons with some of the materials they are likely to encounter at the front, that the gas mask, uncomfortable as it no doubt must be, is the very best friend a man in the trenches can have.

With the perfecting of the gas mask has come a great duel of skilled minds on both sides in the invention of new deviltries, with the hope of surprising the enemy by some ingredient which cannot be absorbed by the common reagents used in masks. Chemists are stationed at outposts and in the trenches to detect the first signs of a chemical attack, both for the issuing of a quick warning to their men to be ready for the attack and also, if possible, to make a speedy identification of the material used. Between this service at the front and the development of new poisons and the su-

pervision of the manufacture of old ones behind the lines, the chemist's share in the war is both exciting and dangerous. Any scientist who has experienced the joy of discovery by arduous research can imagine the feverish intensity of the men engaged in the invention of the new deviltries, with the prospect of their gaining a victory by surprise, not only over one or two opponents, as in the aeroplane service, but rather over a long front of the enemy. Typical of the life of a chemist in war time is the report sent to me concerning one of my recent students, Lieutenant B——, who was one of the first chemists sent to France. Working with an eminent French professor, it was reported to me that Lieutenant B—— "is getting results," but "for the present is laid up on account of too intimate contact with some of his results."

It is worthy of record and illustrative of the humane spirit underlying our own entry into the war, that our government at first thought it would be possible for us to refrain from this savage method of attack, forbidden by international conventions, and so organized competent bodies of men to take charge of the problems involved primarily in defensive measures only. But it soon became apparent that we should be fighting on disastrously unequal terms with an unscrupulous enemy if we did not include in our offensive measures all the dread weapons which the foe had introduced into warfare in a desperate effort to win at any cost. Hence, we have now completely organized divisions of Gas Offense as well as of Gas Defense. The work of the former division includes supervision in the preparation of the chemicals required and in the training of men to use them, as well as intensive investigations for the discovery of new materials to be employed in attack. On the other hand, for gas defense, not only are continual efforts to perfect the mask necessary, but also investigations which aim to

anticipate any chemical surprise the enemy may attempt to spring, and to prepare for the use of any needed absorbent in the mask to counter the stroke. Recently a new division, the Chemical Service Section, has been attached to the general staff of the army. Accordingly, a chemical unit under the command of Lieutenant-Colonel Raymond F. Bacon, director of the Mellon Institute, and including a long list of selected chemists, has now been dispatched to France to serve as adviser to General Pershing in all chemical matters of the war at the front.

With chemists thus needed everywhere for the battle-line itself as well as for the key positions in the vast industries behind the line which supply munitions to our army and to the armies of the Allies, with chemists in no less urgent demand to assist in the solution of the pressing war problems of fellow scientists than to meet the more peaceful needs of the country in the matter of supplies formerly imported from abroad, our country has cause to congratulate itself that there is one important article which some twenty to twenty-five years ago it was wont to import from Germany or have manufactured there, but which it fortunately learned in good time to produce for itself, both of excellent quality and in goodly quantity,—and that article is the American chemist himself. We owe this result in largest measure to the rapid growth of the graduate and other professional schools of our American universities, a development in which chemistry happily has been second to no other science.

The emphasis placed on scientific research with ever growing insistence for twenty-five years was a most fortunate element of unconscious preparation for the greatest test, the greatest strain, to which the skilled minds of our nation have ever been put. With a very few exceptions, found especially among the older chemists in the country, it is the American trained

chemist that is guiding our great war industries; it is the American made chemist that is providing the medicinals, the fertilizers, the dyes, and other essentials of which our country first realized its need when its supplies were cut off; it is an American led corps of American trained experts that are serving under General Pershing at the front. At the same time the pick of our university staffs have been called upon, in the government laboratories and factories and in the research laboratories of the universities themselves, to organize at shortest notice the means for providing our nation with those new dread arms of poison gas and noxious liquid, of fluid flame and flaming bomb, which characterize what we all hope is the last desperate effort of a militaristic aristocracy to force its yoke on the necks of the peace-loving peoples of the world.

DEFENDANT'S EXHIBIT No. 70.

German Militarism and Its Influence Upon the Industries.

Militarism in its true sense is the defense of home and family which has been forced upon the continental nations for the reason that they live in such propinquity to one another. Germany, for instance, is surrounded on all sides by potential enemies. Its frontiers are contiguous to Austria, Russia, France, Switzerland, Belgium, Holland, Denmark, and it is separated by narrow bodies of water from Sweden, Norway and England. What such surroundings means is evident in our own case. We have only two neighbors, Canada and Mexico, and with each of them we have had wars and frequent disputes, such as the Alaskan boundary question, the sealing and fishing controversies, etc. Inasmuch as our comparative isolation has not saved us

from trouble, it is most remarkable that Germany, bordering on 10 countries, has had so few wars.

German militarism is the application of arts and science as well as the most perfect organization and administration to the defense of the hearth.

The prominent features of German militarism are conscription and the standing army.

Conscription has made the defense of house and family everybody's business and not the affair of a few hired men. It has caused the uprising of this wonderfully united nation as one man during this war, and it is the reason for the boundless self-sacrifice of the people—men, women and children—who all feel that everything must be given up for the Fatherland and that individual wants and necessities, worries and pain do not count until victory and peace have been achieved.

The standing army has been pronounced by an American author to be the greatest democratic university of the world. Conscription and compulsory military service combine to make it the army of the German people, and not that of the Emperor and therefore German militarism is not the militarism of the Kaiser but of the German Nation. Everyone from the highest to the lowest is proud to be a member of the army and to be able to contribute to the defense of home and family. Here men of all types of education, the university man and the artist, mix with the laborer and the farmer. During the period of service they learn order and discipline. They are taught the value of punctuality, of exactness, of cleanliness and of obedience. They become aware of the fact that the individual is only a cog in the wheel of the big machinery. The illiterate few recruits from the most easterly parts of the country receive instructions in reading and writing; those recruits who have neglected to develop their bodies owing to lack of exercise im-

prove in physique during their time of service, and in this respect the time spent in the army is of as much benefit as membership in an athletic club. The lessons learned are not forgotten by the soldier after his return to civil life, and order, discipline, and the necessity of physical exercise become indelibly impressed on his mind.

It thus follows that the workingman who has had the advantage of a training in the standing army must be of special value in the industries. An artisan who is clearly, orderly punctual, exact and disciplined, cannot fail to be an invaluable acquisition to a factory of any kind, and undoubtedly the success of the German industries in every branch of human endeavor is due to this class of well-trained laborers. This is a well-recognized fact in Germany and similar views were expressed as early as 1893 by Doctor Caro, one of the greatest technical chemists of all times, who, in his classical description of the development of the German coal-tar industry, published in the "Berichte der Berliner Chemische Gesellschaft," ascribed German superiority to the character of the workingman, who had served in the army.

Germany militarism early recognized the fact that the life and health of the laboring class are an important factor in the resources of the country, and consequently legislation for the protection of industrial workers has been evolved, which has become the pattern for all nations of the world. Even our own country, which we think so free from militarism, has benefited by this German legislation, and when Governor Glynn, of the State of New York, in becoming a candidate for re-election, reviewed what he had accomplished for the people during his term of office, he considered the workingmen's compensation law as the most important of the measures passed during his incumbency. These compensation laws, together with

the old age, accident, sick and death insurance laws, safeguarding and improving the economic conditions of the workers, are directly due to German militarism in its endeavor to husband the strength and earning power of the individual members of the industrial army. Even Lloyd-George, the arch enemy of Germany, copied these legislative measures of German militarism for the benefit of the laborers of England. To this constant care for the individual health and betterment of the working class are also due the establishment all over the empire of government and provincial homes for convalescents, of homes in which persons suffering from incipient tuberculosis are treated, and of many other institutions with the object in view of promoting the recovery of those stricken with sickness.

These in a general way are the benefits which the industries of the country have derived from German militarism, specifically, we note its greatest influence in the agricultural conditions of the country, and influence which is perhaps best expressed by the phrase "the balancing of the interests of agriculture and industry."

German militarism soon realized that in time of war the nation cut of from all supplies will have to feed not only its army but also its population. For this reason special efforts were made to foster agriculture. On general principles, industry and agriculture are sworn enemies. Industry wants cheap food for its workers; agriculture wants high pay for its products, meat and cereals. It is one of the greatest achievements of modern Germany, and this is especially due to Emperor William II, that these everclashing interests were reconciled, and that they were made to see that for the common good compromise concerning taxes, duties, etc., must be adopted, under which both industry and agriculture, could prosper.

Hence, a give-and-take policy resulted, which has accomplished the greatest good for the greatest number, and has elevated agriculture to such a flourishing state that the feeding of the German people today is independent of foreign product—quite different from England, where agriculture was sacrificed at the altar of the industry and where the soil was so outrageously neglected that the nation depends for its food supply almost wholly upon the importation of meat, flour, eggs, cereals, etc.

In order to bring about this magnificent result, agriculture was forced to produce as much as the soil could possibly bear, and consequently farming became intense. Cultivation of the soil, the feeding of animals, etc., became a science. Other sciences, especially chemistry and botany, contributed to the culture of plants adapted for the varied conditions of the climate and soil of the Empire. Seeds were developed and improved to a marvelous extent. While the sugar beet at the beginning of the last century, when the manufacture of beet sugar was started, contained only about 4 per cent of sugar, the quality of the seed was gradually so highly improved that they now produce beets with over 22 per cent of saccharine content. This seed is exported all over the world from Germany, and during the present war one of our greatest worries is that we may not obtain this excellent material from Germany in time to prepare our next year's crop.

The cultivation of potatoes, which were originally introduced into Germany from the United States, has been brought to such a wonderful stage of development that two distinct classes of potatoes are raised, the one rich in carbohydrates but poor in nitrogenous matter for the fermentation industry, and the other rich in nitrogenous matter for eating purposes. Curiously enough seed potatoes are now imported into the United States from Germany because our farmers

allowed this vegetable to degenerate to such a degree that it has substantially lost all value for seeding.

The science of fertilizing achieved the amazing result that Germany's soil, although cultivated for almost 2000 years, is today more productive than the virgin soil of the United States and Canada. Deserted farms like those of the New England States and the State of New York are unknown in the Empire. Chemistry is not only educating the farmer in scientific fertilizing but producing the requisite artificial fertilizers, and here again German militarism in its farsightedness has brought about most astonishing revolutions.

Of greatest importance in agriculture are nitrogenous fertilizers; that is, artificial manure which introduces nitrogen into the soil. The chief material for this purpose is nitrate of soda, which, as saltpeter, is imported in large quantities from South America. Unfortunately this substance is also the sole raw material for the manufacture of nitric acid, and nitric acid is the chief material for the manufacture of all kinds of explosives. The French and English employ picric acid, which is tribitrophenol (lyddite, melinit), and is made by the action of nitric acid on carbolic acid. The Germans are using as their chief explosive trinitrotoluol (tritolyl), which is produced from toluol, a coal-tar hydrocarbon, and nitric acid.

German militarism realized that two great dangers might arise from these applications of saltpeter. In time of war the importation of saltpeter might be stopped by the navy of a foreign nation, and it might therefore become impossible to manufacture nitric acid and explosives. The feeding of the nation might be interfered with, inasmuch as the soil could not be properly fertilized, and hence could not produce sufficient foodstuffs. Therefore, it became imperative that

the nation must become independent of the importation of saltpeter.

The problem was solved by the utilization of nitrogen from the air, and in this way nitric acid was produced without saltpeter as a starting material. Unfortunately, however, the available processes can be carried out economically only in localities whose cheap power is available, which today means countries where water power is abundant. Since Germany has hardly any waterfalls, and therefore is very poor in power created in this manner, the plants for the manufacture of nitric acid by utilizing the nitrogen from air were mostly established in Norway—a foreign country. The problem was therefore only half solved. But soon by the direct union of nitrogen and hydrogen, as accomplished by the ingenious synthetic of Haber, an absolutely independent source of nitrogenous fertilizers and nitric acid was created within the German Empire. The raw materials for the Haber synthesis—nitrogen from the atmospheric air and hydrogen from water gas—are obtainable in unlimited quantities in the country.

In the Habor synthesis ammonia is first produced which, in the form of the sulphate of ammonium, is as efficient a fertilizing material as saltpeter. This method, however, has the disadvantage that the ammonia must be converted into nitric acid by processes which are not yet completely worked out. Undoubtedly, however, the economical manufacture of nitric acid from ammonia will soon become an accomplished fact, as recent publications seem to indicate that the problem is almost solved. During the present war all the saltpeter in the German Empire has been requisitioned by the Government for the manufacture of nitric acid and the production of ammunition, while sulphate of ammonium obtained by the Habor synthesis and that recovered from the by-products of the coking indus-

tries takes its place for fertilizing purposes. The output of the existing Habor plant was doubled at the beginning of the war in order to provide sufficient sulphate of ammonium for the coming crops, and it is said that since that time another unit is in course of construction, which will definitely secure Germany's requirements for nitrogenous fertilizers.

Another great benefit which, while the war lasts, will accrue to German agriculture from scientific farming is that the large acreage devoted to the cultivation of the sugar beet—usually the most fertile soil—will be directly available, without the use of additional fertilizers, for the raising of rye, oats, potatoes, etc. During the war Germany will not be able to export beet sugar, which she does at other times on an extremely large scale, and will therefore not raise so many sugar beets. Utilizing this fertile soil for cereals, potatoes, etc., means an additional supply of foodstuffs for the nation.

The industry for the recovery of the by-products from the coking process, which we already mentioned as a source for sulphate of ammonium, has also been highly developed because German militarism needed some of the resulting coal-tar products for the manufacture of explosives. Benzol, toluol, carbolic acid, metacresol and diphenylamine are starting materials used in the manufacture of ammunition. Formerly, most of these substances were imported from England, where they were produced from coal tar obtained in the manufacture of illuminating gas by the distillation of coal, while in most other countries, for example, in the United States, illuminating gas is made from water gas. By developing the coking industry; that is, by suitably and economically heating coal, Germany has made herself independent of England, and now produces all the materials required for explosives and ammunition within her own borders.

Germany is also the only country which has made itself independent of England as far as its consumption of carbolic acid, one of the most important coal-tar products, is concerned. This substance, employed both for explosives and as a disinfectant in general hygiene and surgery, is a material of war of the highest value.

It was not considered wise nor profitable to remain dependent on foreign sources for such an indispensable article. Soon the ever watchful and resourceful chemist found artificial methods for its manufacture, employing exclusively domestic raw materials.

Today several German factories have installed plants to produce carbolic acid by the acting of sulphuric acid on benzol and subsequent treatment with alkali. Whenever the price of coal-tar carbolic acid arises beyond a point at which synthetic carbolic can be profitably manufactured, these plants are put into operation. They are promptly shut down when the price decreases.

German militarism, by initiating and promoting the everlasting battle between armor plates and armor-piercing projectiles, also conferred great benefits on the industry and on mankind in general. We all know that as soon as an improvement in the manufacture of steel was made which allowed the production of armor plate of great resistance, the chemists and engineers evolved a projectile driven by powder which would pierce such an armor. This fight is still on.

Instead of carbon, which originally was added to iron to produce the iron alloy called steel, we now use nickel chromium tungsten, molybdenum, vanadium, manganese and silicon, which enable us to manufacture refined steel possessing varied properties. Most of these additions in order to give the desired result must be in the state of highest purity. These sub-

stances which at first seemed of no use in any other industry were produced primarily to fill the requirements of the manufacturers of cannon, projectiles, and armor plate, and the largest maker of these elements in the pure state is the firm of Th. Goldschmidt, located in Essen, where it is able to work in close union with the Krupp works.

By these modern improvements wonderful materials were placed at the disposal of the industries. The hardness of steel has been so increased that for safety vaults and safes an alloy is made which can neither be drilled nor exploded nor cut by the oxy-hydrogen flame. The chemical industries have been supplied with refined steel which is not attacked by acids, not even by boiling, "Aqua regia," while other modifications are not affected by hot caustic soda. Some of them are nonmagnetic, others are unaffected by atmospheric influences, or exhibit great resistance to electricity, while some possess high tensile strength. They are thus of specific value in the manufacure of automobiles, of steam turbines, of electric appliances, of rails for electric tramways, of dynamos, motors and transformers.

Vanadium steel furnishes our modern tools which are distinguished by extreme hardness, and here a war on a small scale is going on between structural steel and steel for tools with which to work the former. Every improvement in the hardness of structural steel must of necessity bring about the manufacture of a still harder steel for tools, exactly as in the case of armor plates and armor piercing projectiles.

German militarism has also benefited the industries in a field where its activities could hardly have been expected. We refer to the manufacture of hydrogen and oxygen. Strange to say, these two gases which had never found any industrial application, although known since the birth of chemistry, have lately

become of the greatest technical importance and are today manufactured on a tremendous scale. Hydrogen is used for military purposes in immense quantities for all lighter-than-air flying machines—the filling of Zeppelin balloonettes, the filling of captive balloons which have become of such great importance in modern warfare, being constantly employed by the staffs of the armies for observation of the battle field. By telephone and photography they are in constant communication with headquarters.

The cheap and practical methods which were evolved by the military authorities for the generation of hydrogen are now utilized in one of the industries which has recently become of the highest importance, namely, the manufacture of what is called "hardened oils and fats."

By treatment with hydrogen, oils and fats in the liquid state are converted into solid materials, which usually command a higher price for technical purposes, such as the manufacture of soap, etc.; and low-class fatty substances, which are not fit to be eaten on account of their appearance or odor, may be transferred into valuable food materials. By the economical manufacture of hydrogen, which makes it possible to utilize such inferior goods for alimentation, German militarism again deserves well of the nation. It must also be noted that the cheap production of hydrogen is one of the prominent features in the above-mentioned manufacture of sulphate of ammonium according to the Haber process. Thus the manufacture of hydrogen, while originated for military purposes, is helping to feed the nation by providing new edible substances, on the one hand, and a new source of fertilizers on the other.

The manufacture of oxygen likewise assumed gigantic proportions, after it was found that armor plates could be cut almost like butter by the heat of

the flame from a burner fed with a mixture of hydrogen and oxygen and acetylene gas.

At present, not only the cutting but also the welding of iron and steel is accomplished by means of such a flame; every machine shop is provided with an oxygen apparatus, and soon every garage will be similarly equipped, as it has been observed that the carbon collected in the cylinders of gas engines for automobiles, etc., can be easily removed by burning it out with the oxygen flame.

The oxygen also plays an important part in the running of submarine boats where it is necessary to provide the crew with oxygen for breathing under particularly difficult circumstances. It is stated that nitrogen tetroxide, a gas which can be easily compressed to a liquid, and which, when approximately heated, decomposes with the liberation of oxygen, has been employed for this purpose with great success.

But for the necessity of supplying oxygen to the submarine boats, this substance—until now largely a chemical curiosity—would perhaps never have been thought of for any technical purpose. Undoubtedly many other industries will avail themselves of this new source of oxygen under conditions similar to those on submarines—for example, for driving operations, in mines, for caisson work, etc.

Militarism in the search for new explosives, discovered guncotton and thereby started the "nitrocellulose" industry. While guncotton made by the treatment of cotton with nitric acid proved to be an almost uncontrollable explosive, it was soon found that by a less energetic action of nitric acid on cotton, substances could be produced which were practically free from any danger of explosion. These lesser nitrated cotton products became the starting material for the celluloid industry in all its interesting and important branches. Besides furnishing various well-known

household articles, billiard balls, etc., and substitutes for ivory and tortoise shell, celluloid became the base for a class of very valuable varnishes. It made amateur photography possible by the substitution of sensitized celluloid films for the breakable and heavy glass plates, and it provided humanity with its greatest agent of amusement and instruction—the moving picture show. But as the lesser nitrated cotton substances in celluloid, like all nitro derivatives, were not yet absolutely free from explosive risk under certain conditions, persistent efforts were made to find safe substitutes for them. Lately these experiments were carried to a successful termination, and acetylcellulose obtained by the action of acetic acid on cotton has replaced the dangerous nitro products, especially in the manufacture of noninflammable films for moving pictures—a material in which the absence of danger from fire is obviously of the highest importance.

This acetylcellulose is also of distinct value in the manufacture of a varnish which finds its largest application in the construction of flying machines where its particular properties are of signal service. What a brilliant record of achievement in the search of militarism for a new explosive.

Militarism has also solved the problem for the textile industry as to which colors are most conspicuous and which least visible. Exhaustive tests showed that uniforms of a peculiar grayish-green shade rendered the soldier practically invisible in the field. How correct these observations were was demonstrated at the start of the war when it was reported that the presence of the German troops was not noticed by the enemy at distances greater than 200 to 250 feet.

The most conspicuous color in all kinds of light was found to be red on white or white on red. This fact was made use of by the German advertising men who now paint their posters, etc., mostly in red and

white, and also by the municipalities of German cities which are using red and white surfaces for signposts in their streets. How peculiarly unfortunate for the French soldiers with their red trousers that they could not avail themselves of the result of these tests.

These few instances, which could be multiplied indefinitely, will suffice to demonstrate the correctness of my contention as to the manifold benefits conferred upon industrial development by militarism.

Evidently, therefore, German militarism is not the horrible institution which the English try to make us believe it is. It suits the German people, and it has made Germany one of the most powerful and prosperous nations, and enabled her to compete successfully in commerce and industry with the richest countries in spite of the lack of almost all crude materials, the natural resources consisting only of coal, iron and potash salts. Compare this with our country, which abounds in gold, silver, copper and practically all other metals, besides furnishing cotton and petroleum to the whole world. Yet as the result of wise legislation, incredible thrift and economy, the cooperation of science and technique, and thanks to its militarism, the standing army and general conscription, Germany has reached a most enviable position among all industrial and commercial nations.

German militarism is not the arrogance of a military caste which intrigues lead to war. To its salient features—compulsory service and the standing army—Germany owes its organized industrialism, which has made possible not only the efficient defense of home and family, but the mighty victories gained by the nation in manufacture, commerce, the arts and sciences.

German militarism ultimately means progress along the whole line—law, order, and justice.

Just as little as the New York gangster, the crime of Policeman Becker, the public declaration of Senator

Owen that he would not sit in the Senate together with Roger Sullivan, the Democratic senatorial candidate, the snobbishness of the Daughters of the Revolution or the Holland Dames in admitting new members points to the downfall of the democratic institution of our Republic, just as little does the Zabern incident, the swaggering lieutenant of 20, the exclusiveness of the German aristocrat who may refuse to sit at the same table in a Berlin restaurant with a denizen of the East Side or with one of Hinky Dink or Bathhouse John's heelers, prove that German militarism is an evil thing that must be crushed.

I (VON IGEL).

DEFENDANT'S EXHIBIT No. 71.

THE PRESIDENT'S PROTEST TO GREAT BRITAIN, AND ITS JUSTIFICATION BY THE PERILS TO OUR TRADE AND INDUSTRIES.

For the sake of the economic welfare of our country it would have been preferable, because more impressive, if the following facts had been submitted by a citizen of American birth rather than one of German descent, whose attitude might be considered as not quite impartial. I wish, therefore, you would disregard my personality altogether and only bear in mind that the President of the United States, a Democrat, and the leader of the opposition in the House, Mr. Mann, a Republican, called the attention of the people and of Congress in general terms to the perils threatening our commerce and industry by the unwarranted interference of Great Britain, while I have endeavored to collect the technical data justifying the attitude of our national leaders.

It must be apparent even to the superficial ob-

server of current events that Great Britain indeed "rules the sea," for her warships have put an effective end to all maritime commerce of the enemy. The German and Austrian merchant marines have disappeared from the seas, and as we have practically no merchant marine of our own, the United States is sustaining irretrievable losses. The cotton, copper, petroleum, etc., which supplied the German and Austrian factories with raw materials, as well as our foodstuffs, can not be carried to these countries, so that to-day our commerce and our industries are suffering as much as if we were at war ourselves.

As stated before, it is the object of this paper to show specifically some instances of the great losses which we are sustaining owing to interference with our trade, and to point out some of the perils which threaten our export trade with Germany and Austria in the future when necessity will compel these countries to depend upon their own resources and to so develop their industries that they will be able to dispense with many articles which up to the present time were supplied by us in large quantities.

Cotton.—Of the total amount of merchandise exported from here to Germany to the value of about $352,000,000, $175,000,000 consists of raw cotton. Germany has been making successful attempts to raise cotton in her colonies, and in 1913 she imported altogether 3,500,000 pounds from there, but this supply is of no use during war time, as it can not be transported into Germany. As cotton itself, on account of climatic conditions, does not grow in any parts of Germany and Austria-Hungary, substitute fibers which can be cultivated on domestic soil must be made available. Plants which give excellent fibers and grow in substantially every section of Germany and Austria-Hungary are flax, hemp, and the various species of nettle.

Up to now the substitution of these fibers for cotton has not made any great commercial progress, mainly for the reason that the method for the production of the fibers was defective. These plants to be utilized as vegetable fibers must undergo several operations before they are fit for spinning and weaving. In the present state of this art the farmer who raises the plant is expected also to attend to the subsequent treatment, which is partly chemical and partly mechanical. This is as unreasonable as it would be to rely upon the modern farmer to furnish flour instead of wheat or sugar instead of the sugar beet. Through the British interference with our exports Germany will be forced to seriously arrange for a permanent supply of fibers of which no one can ever deprive her. Then the cultivation of these will be carried out on an extensive scale, and factories equipped with proper machinery will be started, where the plants grown by the farmer will be treated according to the most modern methods which chemical and mechanical skill has devised to obtain the best results in the most economical manner.

Of the plants mentioned above, flax and hemp already furnish large quantities of a starting material for the manufacture of vegetable fibers. The flax plant —Linum usitatissimum—produces linen, but the linen industry, although well developed, has not made such progress in Germany of late, mainly for the above-stated reason that the farmer was compelled also to attend to the after-treatment of the plant. Among the vegetable fibers linen, however, ranks next to cotton in importance and is stronger and more durable, and possesses a peculiar luster; but being a better conductor of heat than cotton, it is not as suitable for wear during cold weather.

Hemp is the bast fiber of the hemp plant—Can-

nabis sativa—and undergoes the same aftertreatment as linen. It is, however, a coarse fiber which does not compare favorably with linen and is seldom bleached and dyed.

To show how difficult it must be for the average farmer who cultivates flax or hemp plants to carry out the aftertreatment necessary for the production of the fibers, a short description of these processes might be of interest.

Ripling.—After having been pulled from the ground the plants are drawn through coarse iron combs, which remove the seeds. These are used for the manufacture of valuable vegetable oils, linseed and hempseed oil.

Retting.—The bast fiber adheres very tenaciously to the woody part of the plant, which makes the separation difficult and complicated. It is accomplished by the "retting operation," a species of fermentation. Retting may be carried out in stagnant or running water or by dew setting, as well as by immersion in tepid or steam or acidulated water. These operations are followed by the mechanical process of "breaking," which facilitates the removal of the woody portion of the stem, this being accomplished by "scutching," by which the woody particles are beaten out either by hand or by machinery.

Finally the fibers are laid out parallel by "heckling," which means drawing the material in bundles first through coarse combs and then through finer combs until it is in a suitable condition for spinning.

It is obvious that these operations are too complicated to be carried out properly by the average farmer. If, in spite of such a handicap, the flax and hemp industry has reasonably prospered, it may rightly be inferred that it will be mightily developed by scientific processes executed in modern factories

provided with the greatest chemical and technical skill.

Among the various species of nettle the one botanically known as *Urtica dioica* L. is the most useful as a vegetable fiber. Prior to the introduction of cotton, the bast fiber of this plant was largely used in Europe for the manufacture of nettle cloth and nettle thread. As late as the beginning of the eighteenth century, these fabrics were used all over the continent, in France, Spain, Sweden, Italy, and Switzerland, and the last nettle thread factory, that in Leipzig, was not closed until the year 1820. The nettle plant is still in use to-day, especially in Russia, where the young plant is esteemed as a vegetable and the matured is utilized as fodder for cattle.

The conditions for raising nettle in Germany have been studied at great detail, especially by Mr. O. Lindemann, of Lorrach-Baden. Sufficient is known to start the production of this fiber on any desired scale as soon as necessity arises. To replace the amount of cotton used in Germany and Austria-Hungary, it would be necessary to plant one German square mile (10,240 acres) with nettle. Such an area can be easily spared, for in spite of the careful exploitation of the soil there are still about 500 German square miles of unused but arable farm land at the disposal of the agriculturist for raising this group of vegetable fiber plants. It is known exactly what fertilizers, what condition of soil is necessary, how the seeds must be planted and when the crops must be harvested. The cultivation of nettle promises to be of especial importance, because the plant may be harvested twice a year; and, being perennial, annual seeding is unnecessary.

The fiber of nettle greatly resembles that of flax, and, if anything, is more durable than the latter. It

can be easily treated chemically, that is, bleached and dyed. In conjunction with flax, hemp, and especially wool, it furnishes an absolute substitute for cotton in every branch of manufacture. Modern processes of refining textile fibers, such as, for example, mercerization, which consists of a treatment of the fiber with strong alkali, permit of the production of superior nettle fibers which might bring them nearer to cotton fiber and render them superior to it for many uses.

The success of the nettle fiber industry is to-day entirely a matter of organization. When this has been accomplished the farmer who cultivates the plant will deliver his crop to the factory just as sugar-beet growers are doing at the present time. In the factory, which will be run by scientifically trained chemists and engineers, the plant will undergo the necessary treatment to furnish the fiber. From this factory the fiber will be distributed to the various textile industries which will spin or weave it, or mix it with wool, hemp, or flax, and which will also mercerize it if desired. The thread, yarn, and cloth, etc., thus obtained can then be used instead of the corresponding cotton fabric for the manufacture of wearing apparel, hosiery, etc. These are in every respect equal to cotton goods and would be, if anything, cheaper if produced on a large scale and under proper economical conditions.

Besides the fiber, the nettle plant would also furnish a valuable feed, because the leaves, after being suitably dried and ground, contain in 100 parts dry substance 35 per cent albumen and 15 per cent nutritive salts, of which 4 per cent is phosphate of lime. A comparison with barley shows that the latter contains only 12 per cent albumen and 3 per cent nutritive salts.

The cultivation of the nettle plant would also increase the use of flax and hemp, as the mixing of their fibers with those of nettle would open up new avenues for the textile industry. A larger production of hemp and flax would have the additional advantage of augmenting Germany's supply of vegetable oils, as both the seeds of hemp and flax furnish very valuable members of this class which already enjoy great popularity in commerce and the industries. Moreover, the larger output of oils would give larger quantities of glycerine, which is produced from them by saponification and is in such great demand throughout the world.

Once started the prospects of the nettle industry would be almost boundless. Chemistry and botany would vie with each other to improve the plant and the fiber, and what possibilities are attainable in this respect appears from the fact that the sugar beet at the beginning of the industry contained barely 4 per cent of sugar, while to-day the seed is so improved that beets with 22 per cent sugar are harvested.

The fear is therefore justified that the present interference with our cotton trade may permanently injure our business in this commodity, not only with Germany but with the rest of the world.

What enormous losses our country suffers owing to the British disregard of our rights as neutrals is shown by the prices of cotton prevailing in Germany. According to a cablegram received at the Department of State from the American Embassy at Berlin on November 3, the supply of cotton was about sold out. Small quantities of good middling were being quoted at 18.352 cents per avoirdupois pound. How glad we would be if we could fill this demand at 12 cents per pound.

Perhaps our troubles in this regard may prove to

be a blessing in disguise for the southern farmer. Perhaps he will now learn the lesson of cultivating diversified crops, especially cereals, and give up his steady devotion to cotton. The South may thus be forced into an involuntary era of prosperity just as the East Indian planters were, when the German chemist synthesized indigo and forced them to abandon the exclusive cultivation of this plant and to start raising cereals. This change, brought about by German science, seems to have almost abolished famines among the Indians, against which the British Government had been previously unable to take any effective measures.

Wheat.—Export to Germany in 1913, $12,500,000. Germany has always been our second best customer for this article. If we can not supply her demands owing to the British embargo upon the exportation of our wheat, Germany must make herself independent of our resources. As it will be impossible for her, while the war lasts, to obtain a supply from any continental country from which she might import merchandise, she will be obliged to find substitutes. Wheat is solely employed for flour making and baking purposes. It has been found that a mixture of 75 per cent or 80 per cent of its flour with 25 per cent or 20 per cent of potato meal lends itself well for bread making. This bread, now eaten everywhere in Germany is excellent, and as far as its taste is concerned is superior to that made from wheat flour alone. By the substitution of potato meal Germany will get along without the importation of wheat from the United States, and on account of the excellent taste of the new bread, it may be assumed that after the war it will retain its popularity and our German wheat business will be gone forever.

This new use of potatoes naturally will severely

tax the supply. But we must remember that potatoes constitute the main crop of the German agriculturist and enough are raised to furnish about 4 pounds a day all the year around per head of German population. If their use for the above purpose, however, should create a deficiency, then a saving could be effected by restricting the manufacture of alcohol from this vegetable. It is a well-known fact that in Germany potatoes are largely used for fermentation and the production of grain alcohol.

In place of them, Germany might now use wood waste for the manufacture of alcohol according to modern process which have been recently perfected.

There are already several factories running in the United States where grain alcohol is made economically from sawdust and wood waste. By treatment with acids the wood fiber is hydrolyzed and converted into a sugar which can be easily fermented. This substitute process has also another advantage in that it provides a welcome source for fodder which can be made from the refuse remaining after fermentation and which will prove very valuable for the live-stock industries of Germany.

Edible fats.—Germany imported from us altogether $25,000,000 worth of fats for culinary purposes, principally lard. The interference with our seaborne commerce through the action of the British Navy has suspended our trade with Germany in this commodity.

Fortunately for Germany, but unfortunately for us, a modern development in the fat and oil industry has provided her with means to utilize materials which hitherto were unfit to eat.

By the so-called method of hardening fats and oils, that is, by treating them with hydrogen, they are not only converted from the cheaper liquid into the

higher-priced solid form, but their taste and odor are so improved that they might serve for culinary purposes, while without being subjected to the hardening process, they could not possibly be thus employed.

Even the various grades of fish oil can thus be rendered available as food materials. Germany can not possibly be cut off from the supply of these oils. The fisheries of the Baltic and the North Sea, of Norway and Sweden would place an inexhaustible and cheap source of fats and oils at the disposal of the German people to whom an opportunity is thus afforded to remain forever independent of the import of edible fats from the United States.

By this hardening process even the waste fats (foots) obtained in refining can be utilized not only for soap making but also for foodstuffs. In short, by suitable treatment with hydrogen, all oleagnous matter may be converted into edible substances.

By arbitrarily declaring naval stores, that is, rosin and spirits of turpentine, contraband of war, Great Britain renders the export of $22,250,000 worth of merchandise impossible. That is such a ruinous blow at a flourishing industry of our South, especially of Georgia and of Florida, that the governors of these States protested in strongest terms to the Federal authorities against this wanton destruction of American trade and the chambers of commerce of the South addressed themselves to all trade organizations of the country in a call for aid in this emergency.

Acetate of lime.—We export $2,250,000 of this material to Germany. It is a very important article for us, as we practically monopolize the trade. It is used for the preparation of acetic acid and is produced as a by-product in the manufacture of charcoal. By heating wood above 230° C. distillation takes place, and the condensing vapors contain acetic acid together

with a series of other organic substances. By collecting these compounds in milk of lime, more or less pure acetate of lime is formed, which is filtered, dried, etc.

From this impure article, pure acetic acid in its various degrees of strength is manufactured. The war has absolutely stopped the export trade in this country.

Acetic acid is of extreme importance in the chemical industries for the production of a very large group of chemicals, among them being the acetic acid derivatives of cellulose, which are employed for the manufacture of noninflammable films. Acetic ether, one of the conversion products, is also largely employed in the manufacture of smokeless powder, especially of that variety produced in small square scales. As vinegar acetic acid is found in every household.

It is therefore of the utmost importance for Germany to develop resources of her own to supply her requirements of acetic acid. A method to accomplish this object has been found in the oxidation of acetylene with the aid of an acid electrolyte or with peroxide compounds under the intermediate formation of acetaldehyde. Although perhaps not quite economical today, necessity might lead to the perfection of this method to such an extent that it might finally prove a cheaper way of producing acetic acid than the present one from important acetate of lime, which thus might be forever banished from our exportations.

As is well known, acetylene is generated from carbide of calcium, which could be obtained from Norway and Switzerland, and eventually might also be manufactured in Germany, where the raw materials for carbide—coal and lime—are found in great abundance. By such a new development Germany would remain safe from any future interruptions of the demands of her industries.

Phosphate rock.—In 1913 Germany imported $3,000,000 of phosphate rock, being by far the largest importer. This material is used as phosphoric-acid fertilizer and represents one of the most important items of export of some of our Southern States. The British molestation of neutral shipping has absolutely killed this trade.

To overcome the danger of having her supply of this material, so important for her agriculture, cut off, Germany will now develop the hitherto neglected resources of her own land. There are numerous places in the Valley of the Rhine and of the Lahn Rivers where phosphate-containing rocks occur. These are not as rich as the Florida phosphate, but may be relied upon to replace a goodly quantity of the imported material. To supplement the output of phosphate fertilizer, Germany can utilize the slag obtained in the production of Thomas steel, called Thomas slag, which is already well-known fertilizer and will necessarily enjoy still greater popularity while England prevents us from shipping our product.

Copper.—Of this metal $53,000,000 were exported in 1913 to Germany and Austria-Hungary. In her endeavor to monopolize the transoceanic commerce of the world, England declared copper contraband of war, and Germany and Austria-Hungary are unable to purchase the required amount from the United States, which is substantially the only exporter of this metal.

Aside from its employment in the manufacture of arms and ammunition, copper has innumerable uses in the arts. The largest part is used as wire for telegraph and telephones, for trolley lines and in general as conductor in long distance power transmission. During the war there will be hardly any news installations for commercial telegraph and telephone

lines. If there should be, steel wire could be employed for these purposes since it is equal in every respect to copper wire, except that special provisions for hanging have to be made on account of the heavier weight of the steel. In this way about 30 per cent to 35 per cent of the copper consumption of former years could be saved and might be eventually utilized for purposes of war.

For long distance power transmission and also for trolley lines, aluminum cable could be utilized to great advantage. The copper thus replaced could again be employed for arms and ammunition, and altogether by substitution of steel and aluminum, upward of 50 per cent of the consumption of copper in times of peace could be made available for war purposes. We must also bear in mind that Germany herself is a producer of copper, and that the Mansfield mines furnish about 30,000 tons a year, which quantity can be easily increased by more intense working of the mines. In case of necessity, other deposits of copper in Germany might be utilized and this metal might also be imported from Norway, which produces a considerable quantity. In extreme need Germany might rip up her hundreds of miles of tramway lines, replace the copper by aluminum and employ the enormous tonnage thus recovered for arms and ammunition.

Concerning the substitutes which Germany will be forced to employ with its supply of American copper cut off, it is well known that the iron ore deposits of Germany and consequently the output of steel wire, are substantially inexhaustible. As far as aluminum is concerned, this can be imported from Switzerland or from Norway in sufficient quantities. Eventually aluminum might also be manufactured in Germany. Unfortunately, however, the starting material for its

manufacture, the mineral bauxite, is at present found only in France and the United States. The importation of this mineral from France will probably stop during the war, while shipping from the United States might be interfered with by England. Fortunately, there exists a process which furnishes a material which can be produced in very large quantities. This substance, when used for the production of aluminum, would constitute an interesting and very profitable part in a series of manufacturing operations that without this outlet for aluminum would not be feasible economically. Such an opportunity is offered by the so-called Serpek process of utilizing nitrogen from the air. This process consists in heating bauxite—the impure mineral form of oxide of aluminum—and carbon in a nitrogen atmosphere. The result of this reaction is the formation of nitride of aluminum and of pure oxide of aluminum. The former furnishes ammonia.

The inventor of this ingenious process originally thought that the oxide of aluminum obtained as a by-product in his mean reaction could be used over again instead of the bauxite in the first step of his operation. However, it was found that this oxide of aluminum was unsuitable for the Serpek process, because, curiously to say, it was too pure, and thus offered great resistance to its conversion into nitride of aluminum. On the other hand, it was determined that it lent itself excellently to the manufacture of aluminum by the usual method. But such enormous quantities of this pure oxide of aluminum are obtained in the Serpek process that the correspondingly large quantities of aluminum which could be produced from it would surpass all the demands hitherto known for this metal. If, however, aluminum could be employed extensively as a substitute for copper, the Serpek process might become economical. Especially would

this be the case if this process, which furnishes ammonia as the principal product, could be combined with the Birkeland-Eyde process or its modifications of utilizing nitrogen from the air with the formation of nitric acid. We would then have the following interesting operations:

We would first prepare pure nitrogen and pure oxygen from liquid air according to the well-known process of Linde, Hilldebrandt, or Claudet, etc. The nitrogen thus generated would be used for making the nitride of aluminum, which in turn would furnish ammonia, in which would be collected the nitric acid formed according to the Birkeland-Eyde process, furnishing as the end result nitrate of ammonia—the ideal nitrogen fertilizer. In the Birkeland-Eyde process, oxygen is necessary for the conversion of the nitrogen from the air into nitrous gases which is accomplished by combustion of the air. If this combustion is carried out by utilizing the pure oxygen which has been originally separated from the liquid air as described above, the reaction is very favorably influenced and large yields are obtained. The pure oxide of aluminum, as stated above, will serve for the manufacture of the metal aluminum. The finished products of this readjustment of manufacture necessitated by the substitution of aluminum for copper would, therefore, be nitrate of ammonium or nitric acid and ammonia and aluminum metal.

But this new development might be impossible, while the war lasts, if the Serpek process would depend on bauxite as a crude material. Fortunately, however, this process in its first step, the production of nitride of aluminum, is a refining process for oxide of aluminum, and it has been found that the pure French and American bauxites are not absolutely necessary for the reaction, but that less valuable de-

posits found, for example, in Dalmatia, in Austrian territory, may be employed. It is also expected that kaolin or ordinary clay, which chemically are silicates of aluminum, might be available as starting materials for the Serpek process, and if these hopes are realized and a larger outlet is found for metallic aluminum, the prospects for process this would become most excellent.

Nickel.—Of the total export of about $10,000,000 of metallic nickel obtained by refining Canadian ore in domestic plants, Germany takes the largest part. To satisfy the demands of their industries, Germany and Austria-Hungary will now be obliged to turn to the development of their native resources and to open up some mines in Hungary, where a rather poor nickel ore is found. Deposits of such ore have also been discovered in upper Italy and Norway.

In the case of nickel and many other minerals and manufactured articles it has up to now been easier and perhaps cheaper for Germany to import them than to go to the trouble and expense of developing domestic resources. But when necessity once enforces readjustments of this kind, there is great danger that the newly worked mines may develop into something better than originally anticipated and may thus lastingly injure our trade.

Petroleum. — Germany imports from us about $10,000,000 worth of illuminating oil, lubricants, and paraffin. Her supply of benzene apparently comes from the Roumanian, Galician, and Russian oil fields.

Large quantities of kerosene are used as motor-spirit, either in admixture with benzene or coal-tar benzol. To replace petroleum for illuminating purposes Germany has at her disposal grain alcohol, which in the form of denatured alcohol and used in especially constructed burners, offers a cheap illumi-

nant of domestic production. Carbide of calcium and acetylene gas obtained therefrom may be largely utilized in addition to electric light, which, although the most expensive method, is always available and will ever be so on account of the vast wealth of coal which Germany possesses.

To replace petroleum as motorspirit Germany employs coal-tar benzol which is recovered in large quantities in the coking of coal, that is, suitable heating of coal. Denatured alcohol also serves this purpose in carburetters adapted for this substance.

To replace petroleum as lubricant there are available the paraffin oils, cylinder oils, etc., obtained by the distillation of lignite coal, an industry already established but hitherto kept down by the competition of the American petroleum products.

Deposits of lignite are very common all over Germany and this industry may be very largely expanded. It also furnishes benzol and illuminating oil which altogether with the supplies from Rumania and Galicia may make Germany herself entirely independent of our resources.

In this connection it must also be considered that the latest improvements in Diesel motors permit the use of even heavy coal-tar oil as fuel for these wonderful gas engines. This means a further reduction of the German consumption of our petroleum products.

As stated before, the available substitutes, coal-tar benzol, and distillation products of lignite can always be produced in large quantities in Germany.

Concerning the manufacture of denatured alcohol, there are many waste materials which might be profitably utilized for the preparation of grain alcohol. The fermentation of beet sugar, molasses, or of the refuse of fruits, vegetables, etc., in the preserving industries might furnish additional quantities of al-

cohol. The new method of making alcohol from sawdust and wood waste has already been mentioned as a further source.

Even the sugar beet itself might be largely submitted to fermentation processes instead of serving for the production of sugar, because it will be impossible for Germany to export much of this article while the war lasts.

Perhaps the inland sugar consumption may also decrease because the authorities have raised the restrictions against the use of saccharin in order to provide a cheap sweetener for the home preserving industry, which the Government has been so strongly urging for the conservation of the immense fruit crop with which Germany was blessed this year.

Saccharin is also to be made a part of the iron fund of necessities carried by the soldier in his knapsack. Experience in the field has shown that soldiers can not always procure sugar for their tea and coffee, and as these beverages are not enjoyed unsweetened, a small box containing saccharin tablets is to be provided.

All this proves again what has always been claimed, that the prohibition against saccharin was not a sanitary measure dictated by the necessity of guarding the health of the people, but had for its object the protection of beet sugar against the much cheaper chemical. The Government realized that from an economical point of view the beet sugar industry with its diversified interests was of greater importance to the State than the manufacture of saccharin which required only a few laborers, but produced an article of which 4 pounds equaled in sweetness 1 ton of sugar. Of course, everyone realizes that sugar, besides being a flavoring agent, is an important foodstuff, while saccharin is simply a sweetener and entirely devoid of nutritive properties.

The illustrations given above will show what new conditions have been imposed upon our commerce and industries and what readjustments will take place in Germany and Austria-Hungary owing to the interference with our trade on the part of Great Britain. Even in a country so highly developed industrially as Germany there are still resources locked and materials wasted and neglected which if properly utilized may make that nation independenct of importations from abroad and may thus considerably affect our own prosperity. Notwithstanding that this fact has been adequately demonstrated in this paper, permit me in conclusion to cite a very significant example of such waste.

The yeast of the fermentation industries, of which Austria-Hungary alone produces about 30,000 tons, has been allowed to run to waste, although it represents a nutrient of highest value. Compared with beef it possesses three times the caloric value calculated at the same price. Its composition compared with beef is as follows:

Yeast, 54 per cent albumen, 3 per cent fat, 28 per cent extractive substances free from nitrogen, and 8 per cent of water.

Beef, 21 per cent albumen, 5.5 per cent fat, 0 per cent extractive substances free from nitrogen, and 72 per cent of water.

The albumen contained in the yeast corresponds to meat albumen and not to the albumen contained in vegetables, and yeast albumen is therefore a direct substitute for meat

It may be employed as an addition to soups, sauces, and stews, and is altogether an excellent dietetic food for underfed and convalescent people. Excepting being used at present by the German military administration for soup conserves and as a strength-

ening addition to the soldier's bread, this valuable material produced in such immense quantities is totally discarded.

During the war the breweries of Austria-Hungary have decided to furnish their yeast gratis to the population. As the entire production of this yeast in the world is about 2,000,000 tons, we are wasting here a foodstuff equivalent in its caloric value to 6,000,000 tons of beef.

The thought occurs whether in these times of high cost of living we ourselves might not profitably utilize this waste material of our breweries and distilleries!

Besides interfering with our exportation of domestic merchandise England has succeeded in destroying our importation of such articles as potash salts, cyanide of potassium, seeds of sugar beet, dyestuffs, etc., of which our agriculture, our mining and textile industries are so badly in need and of which Germany is the only country producing quantities sufficient for the world's trade.

But our industries sustained the worst check by the proclamation of the wool embargoes on the part of the British Government. England placed such large orders here for supplying her armies with clothing as to practically clean out our woolen mills of certain grades of raw materials, while English and Canadian buyers at the same time bought out our raw wool supply.

Furthermore—and this shows the maritime power of Great Britain better than any other example—British vesels were forbidden by their Government to carry wool from Argentina and Uruguay to any country—nations at war or neutrals—excepting to England.

This accomplished, England placed an embargo on raw wool, excepting the short and fine sort from South Africa, which is unsuitable for military clothes.

By these ingenious methods England prevents our textile industries from getting certain grades of their most important raw material, wool. Our mills will be unable to manufacture certain classes of goods for the domestic trade, and they will also lose the chance which we hailed with so much joy, of supplying England and her allies with military goods, because she will own all the raw wool needed for their production.

On the other hand, the British magnanimously permit and encourage the exportation from their own country of manufactured articles, such as woolen yarns and clothes of all grades, excepting those suitable for military purposes. This results in the continuance of heavy exports of woolens from the Bradford district, and the American consumer will thus be forced to use English made goods thereby increasing the foreign trade of Great Britain, which has cunningly contrived to destroy our own manufacturing.

Even our charitable ladies who are engaged in knitting various articles for British soldiers which their own Government ought to buy for them pay in every stitch tribute to the wily trader of England who uses the war to strangle the business of his rival merchants and manufacturers and to monopolize forever the oversea commerce of the world.

In this connection think of the injury to the interests of our southern farmers which Mr. Colquitt, the Governor of Texas, a Democrat, in a recent article in the New York Times describes as follows:

"It has allowed England to dictate conditions as to cotton shipments to European countries that enables the English spinners to rob the American cotton growers of half the value of their crop.

"England stopped American shipments until the English spinners had bought their supply at 6½ cents a pound and stored it in Texas and other southern

warehouses. Then England consented to declare cotton not contraband, and France followed suit a day or two later. Our Government weakly submitted to England's dictation, playing into the hands of the English spinners and betraying the American cotton growers as completely as if this country were an English vassal State."

These monopolistic tendencies of Great Britain are also cogently set forth in a speech by Senator Walsh, the chairman on Mines and Mining, before the Senate on December 31:

"Some degrees of circumspection might be expected in the exercise of her undoubted rights, some delicacy in asserting them, in view of the fact that the course that had been pursued is obviously to the advantage of her fabricators of copper as against those of competing neutral nations. If the shipment of copper to Italy and the Scandinavian countries can be shut off or seriously embarrassed, the English market, the only free untrammeled one to which our surplus can go in any quantity is continually glutted. The price of raw copper is continually depressed there, although it is unduly expensive in the rival countries. Her manufacturers enjoy a distinctive advantage in the purchase of their raw material. Then, the supply on the Continent being precarious, the English factories capture the market."

These remarks offer abundant food for thought. In the case of copper and cotton, we own all the raw material and are able to produce articles manufactured from them in our shops. Thus we are only injured in so far as a certain export of these materials to the neutrals is concerned.

But in Senator Walsh's remarks, substitute wool and rubber for copper and add the United States to the countries mentioned and you will realize what the British embargoes mean to our business.

What is going to become of our textile industries if there is a scarcity of wool in the mills, what of the laborers employed in the manufacturing of woolens?

What is going to be the fate of our rubber industries if they lack the needed raw materials? A report of the rubber trade association shows that the normal requirements of crude rubber in this country for next year will be 65,000 tons, including low-grade and bastard gums. So long as the British Government maintains the embargo there will be available only 35,000 tons of Brazilian rubber and 5,000 tons from other sources. Europe will take at least 7,500 tons of the Brazilian crop, regardless of price, which leaves the American supply at about 32,500 tons, or less than one-half of the demand of 65,000 tons.

To-day already 125,000 rubber workers of a total of 250,000 are out of work and in need. Nothing can be done for them, however, and if the embargo is to be maintained for any length of time, what is to become of those who are still employed today? Will the outcome of the rubber embargo be that tires or other goods will be brought from Great Britain into our country and sold at prices lower than those at which our manufacturers can produce them? As a remedy against this sad state of affairs the association proposes to agitate immediate action by Congress, with the end in view of prohibiting absolutely the importation into the United States of British rubbers or products thereof or of any kind of manufactured rubber goods.

Immense and irreparable damage to our industries must result from the tactics of Great Britain to accumulate by these embargoes all the important raw materials to the exclusion of American and foreign buyers, which means low prices to and monopoly by her own manufacturers, and for the molestation of

our own and of neutral shipping. As emphasized in the President's protest, the moral effect of the latter is to deter shipowners by arbitrary detentions from lending their vessels to losing ventures, and thus to drive United States and neutral commerce from the seas.

The greatest of all wars means for Great Britain not only the smashing of German commerce and industries but the building up of a world of monoply of manufacturing and of the sea-carrying trade of the earth. She does "business as usual," keeps her navy intact and her soldiers at home, excepting her small regular army, reinforced by a few Indians, Canadians, Portuguese, Australians, etc., while she has firmly resolved to carry on this war until the last Frenchman has been killed.

DEFENDANT'S EXHIBIT No. 72.

REPORT OF CONSUL GENERAL HOSSENFELDER TO THE IMPERIAL CHANCELLOR, DR. VON BETHMANN-HOLLWEG.

New York, March 3, 1916.

The proceedings which have taken place here during the last weeks in the domain of domestic and foreign policies make it seem proper, in my opinion, to treat connectedly anew our economic-political relations to the United States.

The revolt, certainly without example, which has broken out in Congress against the President on account of his attitude in the submarine boat questions has not the least thing to do with the feeling in the country toward Germany. According to the explanations given by your excellency and by Under State Secretary Zimmermann the people were convinced that Germany had reached the limit of its compliance;

they saw themselves placed, through the President, before the danger of a war with Germany, and through their chosen representatives made him understand that they did not want war and would prevent it by every means. In this decision the determining factor was the consideration that a break with Germany would have incalculable consequence for the United States and that no sufficient reason was at hand to take a step fraught with such consequences.

Again, the conviction that a break with Germany is to be avoided in the interest of the United States is not based, as might be supposed, on the fear of the German Empire, but on the provision that the Americans, in case they take a hand in the conflict, would have to raise war costs for the Allies, and, most of all, that the country would be divided into two hostile camps by a participation in the European war, out of which, under increasing embitterment, severe internal conflicts could develop. Sober business sense and cool calculation between the stakes and the possible gain have guided the American peoples, not by any means a change in their sympathies for the individual nations waging war. This statement seems to me necessary in order to meet those who, in spite of all experience, stick to the illusion that a transformation of feeling in favor of Germany can be detected, and lay claim to every incident by which our interests are not directly injured as a proof of the correctness of their view.

Germany and the United States, even after the outbreak of the war, were willing to carry on commerce with each other. This commerce was tied up merely by England, which wants to prevent Germany from drawing necessary materials from abroad on the one hand and on the other of improving her finances by the sale of her own products. For this reason the relation between the United States and England is, for the duration of the war, of far-reaching signifi-

cance also for our economic relations to the Union. Hitherto the United States has accepted the injury to its commerce by England, has borne the loss arising therefrom, and has taken no steps to force the abolition of the existing situation in its essentials contrary to international law. Does there exist now in reality any well-founded prospect that a change is taking place in this attitude? This question I must answer with an unconditional "No."

Among us the view has plainly hitherto found zealous advocates that the United States would proceed against England and the English aggressions as soon as we shall have yielded to American wishes in the *Lusitania* affair. As is well known to your excellency, I have always considered this view to be a grievous mistake. If my conviction hitherto was based merely on personal observations and inferences, I believe now I am justified in assuming that the incidents of the last few weeks have brought out the feeling of the Government here without concealment and (in a manner) recognizable by everybody. We meet in Washington only hostile feelings and conscious partisanship. However, the fact remains that the chief trend of the politics of the Federal Government is determined by internal political pressure and counterpressure.

So far as the feeling throughout the country is concerned, the English aggressions, especially the molestation of American travelers, the confiscation of mail, and the supervision of American business by British diplomatic and consular representatives has recently, beyond doubt, aroused strong dislike. But the bearers of this bad humor, which is openly expressed very often, are those in the main who have been directly or indirectly hit and who in their totality do not make up the whole of public opinion by a long shot. There exists only an invitation which makes the

wish for a remedy become vocal in these special cases, but which is not in the remotest strong enough to break the bonds sealed by race, language, and views of life which bind this country to England or from the feeling of mortification to arouse sympathies for the enemies of England. The longer the war lasts the clearer it will become, even to the prepossessed American, that England is sorely fighting for her existence. His ethics allows the American regardlessly to exploit the embarrassing position of the fellow members of his race to his own advantage. Nothing lies farther away from him than to take the side of Germany in this struggle for Anglo-Saxon supremacy. He can not at all, therefore, wish in his heart that his country should hinder England from wounding Germany or that he should furnish Germany the means of being able to continue the battle against England. Ample provision is made there that the question whether the lack of certain raw materials will not finally force Germany to a peace is kept continually before the eyes of the American public. I am, therefore, not able to see upon what a justified hope for an "about face" in popular opinion in our favor could be based.

Economic considerations, i. e., their own advantage, for high finance here and the industry dependent upon it for the stock exchange and all those who live from the manufacture of arms, ammunition, and war material, point the way into the English camp as I have already explained in earlier reports. They have all the most urgent interests in the preservation of England and in following an American policy which takes account of English needs. In regard to the political influence lodged in these groups, I need not spread myself further here in view of former reports rendered.

On the other hand, a different relation exists with the producers of raw materials who are robbed by

England of the possibility of selling their products to the Central Powers and with those business circles and branches of industry which need German wares and German raw material. With both, the interest in the continuation of commerce with Germany stands in the foreground.

Among the producers of raw materials the cotton planters occupy the first place. I can only repeat here what I have already elucidated in another place, that the cotton planters are not suffering distress, that their pressure meets a stronger counter pressure, and that they, with their possible consideration, will find no hearing in Washington as long as the prices of cotton are maintained at a proper level. That is the case at the present time and, according to all reckoning, will be the case for an ample period to come. If later the prices for cotton should fall below a certain level, it not only lies within the realm of possibility to remedy the complaints of the planters by Government measures, but England also will be reminded of her promise previously given to be willing to support the cotton market if necessary.

On wheat, which is at a very much higher price than before the war, the farmers have made enormous profits. For the copper market other conditions hold, as the conditions of a whole fraction of the population does not depend on it. Incidentally, the prices are extraordinarily high. The consumption of a whole list of other articles has so increased as a result of the war, both here and in the foreign lands hostile to us, that the loss of the demand from the Central Powers is being more than equalized. From the group of producers of raw materials also no pressure promising results is to be expected. That the army of importers have not to-day the interest in the maintenance of unhindered commercial intercourse with Germany as at the beginning of the war, because their business ener-

gy has been applied to other ends, the business expert has already explained in his report No. 3, Part II, of the 14th of this month. The movement emanating from the importers has heretofore, with the lapse of time, lost very considerably in extent and significance.

Neither through money nor the granting of credit, nor by any other means, can that critical situation be relieved which has been called forth by the removal of certain articles which are obtainable only in Germany. These articles are chiefly potash, chemicals, and dyestuffs. Potash is desired by agriculture, inclusive of the cotton planters, all the more urgently since even last year sufficient fertilizer could not be brought to the soil. To enumerate the industries which are suffering from the scarcity of German chemicals would lead too far. I may, however, mention that the cry for help which comes from the world of physicians is becoming louder and louder and more and more insistent.

The country, however, is being hit hardest by the lack of dyestuffs, which makes itself felt more and more every day in regard to which I may refer to the report of the business expert No. 5, Part II, of the 15th of this month. What the United States is able to produce in dyestuffs is neither in quality nor in shades in the remotest sufficient to meet the existing demands. It is now acknowledged here on all sides that the reports to the contrary of Mr. Norton are not only too optimistic but directly untrue. With these, the assurance of Mr. Redfield, Secretary of Commerce, at whose suggestion Norton's reports were made, have lost their value. Of the agitation brought about by the Government there is left only the effort to carry through some legislation by which great hindrances are to be put in the way of the importation of dyestuffs in the future. In estimating the effect which will be produced by cutting off the importaton of potash, chem-

cals, and dyestuffs it should be taken into consideration that the circle of persons affected is very extraordinarily large. Through the lack of dyestuffs alone not only is a whole list of important industries (wool, cotton, leather, paper industry, etc.), gradually made lame but for the great public living becomes more expensive both through the rise in price as well as through the small durability of all products for whose production colors are used. We are here unquestionably face to face with conditions which are without a parallel in the past.

When I balance the pros and cons with each other I come to the following conclusions in regard to Germany. If we, at some calculable future time should be restricted to American articles in order to be able to carry on the war, something which would certainly not escape the official American representatives in Germany and which would not remain hidden from England, we would not get these articles because England would not permit it, and the dominant factors in the United States likewise do not wish it. If the Government here, on account of individual English aggressions, should screw itself up to inconsiderate language in its notes addressed to England, it is to be assumed that these notes are first and foremost intended for home consumption. That the United States should decide, in case of necessity, to give emphasis to its demands by measures of compulsion, I consider impossible before as well as after. Besides, for example, even a threat of an embargo on munitions and war materials would make little impression on England at present, since such an embargo would hit America much harder than the continuation of the suppression of commercial intercourse with the Central Powers.

If the idea of the possibility that the United States, in order to carry through its demands, could use meas-

ures of compulsion or of retaliation is dropped, the fact still remains that England in many important things is dependent upon the support and the good will of the Union to a far-reaching degree, and could, therefore, see itself forced voluntarily to yield to certain American wishes, even if the fulfillment of these wishes touched English interests. The situation created by the lack of potash, chemicals, and dyestuffs will make a decision necessary within a calculable period. I consider it, therefore, to be probable that the American Government, which can not escape its obligation in relation to its own country, will demand from England the unmolested exchange of the German articles mentioned for American products like wool, etc. If this should take place and England should show itself inclined to yield to the demands, which is very doubtful, the question still remains open whether a real gain is thereby achieved for Germany. I must answer this question in the negative.

In his report No. 3, Part II, of the 14th of this month, already mentioned, the business expert has treated the changes which have taken place in the economic domain here as the immediate consequences of the war. He has explained that not only a far-reaching dislike to Germany and German products has gained a footing here—and, indeed, in the influential business circles—but that zealous efforts are being made to render themselves independent of Germany in the industrial field; that especially the elevation of tariff barriers and the sharpening of procedure in collecting tariffs is favored by both great parties. On the basis of his searching investigations he has come to the conclusion that after the end of the war we will be compelled to build up our export business to the United States anew from the bottom up. I agree with his arguments in all points.

The conviction that the United States is chosen to

draw permanent advantages without effort out of the economic exhaustion of the nations involved in war has become a sort of dogma to the American. We, on the other hand, upon whom war has inflicted deep wounds, will naturally not feel any inclination after the war to delay the healing of these wounds by allowing a neutral of strength in the economic domain to follow the grievous passage at arms just concluded. In the transaction with the United States (tariff navigation) for which we must make ourselves ready after the war, we shall have, therefore, an extraordinarily difficult situation. In these transactions the circumstance will be of such a great weight that Germany, victorious in all the theaters of war during the war, has been compelled to put up with a neutrality existing only in name, a neutrality of the mendacity of which people here are fully conscious. As I am acquainted with the quite ridiculous belief of the American in his own superiority and its consequences, I consider it extraordinarily important that a counterpoise be created here. The opportunity for it is at hand.

Without needing to run the risk which in the intercourse of the nations is bound up with every arrangement of war measures, we now have in our hand the means of showing the American by withholding potash, chemicals, and dyestuffs that he can not do without Germany; we can bring before his eyes what value appropriate commercial relations with Germany have for his own land. After the war the opportunity for a practical demonstration of our strength and his dependence will not exist unless we allow it to come to a trade war. If we allow the American to relieve the critical situation in which he is placed by pressure upon England we shall show ourselves in his eyes only as not equal to the situation and shall uselessly play our chief card. Since, as I have argued above, we shall

not receive the articles which we unconditionally need for the continuation of the war, from America, the alleviation which, for example, the occasional exchange of a quantity of dyestuffs for a quantity of cotton may afford, is, in my opinion from the German viewpoint no equivalent for that which the American receives. Therefore we should, according to my conviction, hold ourselves absolutely passive in relation to the proposals for the exportation of potash, chemicals, and dyestuffs, and if the opportunity arises make the sanction for them not dependent upon the consent for an exchange of articles but upon the abolition en bloc of all the hindrances to intercourse contrary to international law which have been instituted by England. The impossibility of fulfilling this demand would merely contribute to give the effects of the lack of German articles a very intensive shape. In political regards we have nothing to hope from the United States during the war and the time following on the treaty of peace which will be dominated by the immediate recollection of the war. Experience has taught us that our willingness to meet half way has been answered by setting up new demands. As I have occupied this position from the beginning, I may indeed repeat it here once more after the events from the very beginning, I may indeed repeat it here once more after the events have spoken.

In conclusion I should like to refer still to a phenomenon which no one here can pass over. It concerns the attitude of the large German firms or large firms representing German interests. It is striking in what an increasing degree these firms, with a disregard of the cause of all Germany are concerned only about their own business welfare and their profits in money, since the danger that we might sacrifice our position as a great power in this war, appears to them to be

averted. On this fact, the justification for the contradiction can be measured which might easily be raised directly or indirectly to the views of certain business circles represented here. The prospects for large profits are most weighty among the representatives of the dyestuffs industry. Therefore, in these circles the doctrine is most loudly championed that the resumption of exports even without a quid pro quo and an exchange of wares must be Germany's principal aim in commercial politics.

The chemists whose judgment as specialists is not determined by the commercial directors over them, unreservedly acknowledge that the building up of a chemical industry of equal rank in the United States will take years under the best circumstances; that it is, besides, hardly possible without the help of the talents trained in Germany. What can take place in years will take place whether we furnish dyestuffs now or not. For our national economy some millions of dollars which flow into the pockets of the dye industry are of small significance. As long as we buy in Scandinavia, Holland, and the Balkan countries, the rate of exchange of the Imperial mark will be unfavorably influenced in the United States also. The ideal means of supporting the rate of exchange is the sale of German securities; for the systematic working up of the field a large market is to be found here.

A copy of the report goes to the Imperial German Embassy.

HOSSENFELDER.

To his excellency the Imperial Chancellor, Doctor von Bethmann-Hollweg.

DEFENDANT'S EXHIBIT No. 73.

DR. ALBERT'S REPORT TO THE GERMAN GOVERNMENT ON THE DYESTUFFS SITUATION.

DOCTOR ALBERT'S CABLE ON THE EXPORT OF DYESTUFFS.

April 26, 1916.

The policy of withholding dyestuffs was at the beginning of the war without doubt the only possible one. The hope was entertained of bringing the American industries which were solely dependent upon German deliveries of dyestuffs into the position that they would have to insist on the importation of dyestuffs under the conditions demanded by Germany.

This policy has been in part successful in so far as a great dearth of dyestuffs has beyond all doubt arisen. The industries concerned have developed a lively activity in order to induce the Government to accept the German conditions—export of dyestuffs only in return for the importation of goods to Germany. But it has been demonstrated, nevertheless, that the political pressure of these circles was not strong enough to cause the American Government to force England to give up this blockade on imports.

In the meantime the lack of dyestuffs has, to be sure, not been eliminated, but it has been in many respects mitigated. The public has once become accustomed to ask for articles which are dyed with colors produced here in the country. Moreover, a certain development of the American dyestuff industry has taken place. This, to be sure, is not in a position to compete with German industry in the most important and most numerous products, but has, nevertheless, assured itself of a certain market territory. A lively demand for protective tariffs and for clauses in the

tariff legislation which shall prevent "dumping" has been called into existence. By emphasizing the national element a certain pressure has been exerted on the American Government which can, to be sure, hardly have as its result the rearing up of an American dyestuff industry equal to competition, but which may easily lead to the result that legislation embarrassing in many respects will be introduced.

"The German Government has been made responsible for the famine in dyestuffs, as the press of the Allies has succeeded in veiling the real state of the case in a very skillful way. The German standpoint was understood in interested circles at the beginning. But when the withholding of dyestuffs exerted no influence on the attitude of the American Government in relation to the English blockade, the uselessness of this procedure should have been recognized in the opinion of many Americans. As that did not come to pass, motives were sought for and found in the aim (endeavor) that the German Government, by cutting off dyestuffs, wanted to hinder the development of the American textile industry in South America. Accordingly the arguments which undoubtedly influenced the English policy were turned against us. In view of the great sensitiveness which all South American questions meet in respect of the Monroe doctrine, an unpleasant political impression has been thereby created.

"The effort of the Allies to put the blockade against Germany into effective shape is lately no longer restricting itself to the prevention of importation. Since importation from the countries bordering on Germany cannot be prevented attempt has been made to sharpen the effect of the blockade by preventing payment for this importation. Not only the exportation of German wares, but also most of all the creation of German credit by the sale of securities is

made difficult in every way possible. As it was openly expressed, the Allies want to prevent the formation (establishment) of every new German credit abroad. As Germany in fact has large imports for which it cannot pay entirely by exports into neighboring countries, and as the sale of securities has been rendered difficult for various reasons, the German rate of exchange has, in fact, started on a downward path. The Allies take advantage of that very skillfully to show that Germany has reached the end of its resources. The declining rate of exchange, they argue, shows an exhaustion of German credit. With these arguments they reconcile to a certain extent that part of the public which considers the blockade illegal, but for humanitarian reasons long for a swift and, if possible, bloodless ending of the war. From this point of view every means which brings about a strengthening of the rate of exchange is of the greatest importance.

"It therefore appears especially desirable to acquire credit in America by the release of dyestuffs. This credit, on the basis of a quantity of 15,000 tons at today's prices might yield a sum of $20,000,000 to $30,000,000. If this sum is paid in an appropriate way and a correspondingly skillful use is made of it, it is easily possible to influence the rate of exchange thereby. It is not a question of bringing the exchange up to a definite point by this sum. But an upward movement can be effected. If such a movement sets in, other forces will work in the same direction. Most of all, bear speculation (short selling), which has been carried on to a considerable extent, will be discouraged. Besides, it is to be assumed that a rise in the rate of exchange will exert a favorable influence on the sale of the German war loans. A low rate of exchange certainly invites many a one to buy; a declining rate, however, discourages the owners of securities, deters

them from new purchases, and leads to a certain depression in all circles coming into question.

"Different objections have been raised against this. It has been argued that the sum is not sufficient to bring about a lasting improvement in the rate of exchange. The rate would decline again, and with that the purpose of the Allies to show the weakness of Germany, in a falling rate of exchange would be attained. Of course, it cannot be told today whether the attempt will be successful or not. But the following can be assumed with certainty: If $30,000,000 with proper use can not hold up a decline in the rate of exchange, then the manipulations of the Allies without such a counter influence must bring about a far worse repression. A second objection is this: The submissiveness which we show in this field, it is asserted, plainly shows Germany's necessity to mobilize its last reserves. There is no doubt that this argument will be used by the allied press. But the fact must not be overlooked that a successful move by Germany in this field will be very unwelcome to the Allies. It will not be hard to prove that the sale of comparatively small lots is to be regarded as an accommodating attitude toward American consumers, and not as a sign of weakness.

"As a matter of principle we do not surrender our standpoint in relation to the Allies. By the creation of American credit we thwart the blockade of exports attempted by them, which, as a matter of principle, is certainly just as important as the attempt, and, moreover, the unsuccessful attempt, to thwart the blockade on imports by withholding dyestuffs.

"As far as the fear is concerned that Germany's compliance in relation to the Americans might be regarded as weakness, and might thereby render difficult our other negotiations, this argument is certainly with-

out foundation. The expositions of principles with the United States in regard to the submarine boat question has reached such a stage that comparatively subordinate questions are without influence."

DEFENDANT'S EXHIBIT No. 74.

Berlin, May 21, 1916.

For Privy Councilor Albert.

His Excellency the Imperial Ambassador, COUNT V. BERNSTORFF,

Washington, D. C.:

In the New Yorker Staats-Zeitung of April 16 we find the note printed concerning aniline dyes, supposedly directed by your excellency to Lansing. Therein is stated:

"Under those conditions (?) the Imperial Government is, if necessary, even prepared to put forth every effort to have German chemical factories, in so far as circumstances will allow, to put aside all other work and manufacture such colors as are especially urgently needed in the American market."

In this especial attention should be given that unnecessary competition is not made against the American dyestuff industry. This announcement, which does not correspond to the facts, is likely to bring forth discord in the interested circles here, or will result in difficulties (inconveniences) to our industry. I shall look forward to a report by the next mail, if you please, which will be necessary in explanation of the information given out and which goes beyond the limits of the authority given you.

ZIMMERMAN.

DEFENDANT'S EXHIBIT No. 75.

Rye, N. Y., June 21, 1916.

Secret.

For Privy Councillor Albert, Imperial Germany Embassy.

A No. 322.

In reply to the official notice of 23 IV 16 No. 182 and of 21 V, '16—No. 11 20 2235.

On file (dyestuffs). In the envelop. Post code (cipher):

"Among the reasons which were determinative for the refusal to export dyestuffs without equivalent, the indirect effect of this refusal on the English blockade was not only the principal one, but also the reason in regard to which it would have been difficult for the Imperial Government to form a judgment of its own. On this account I expressly emphasized the fact in radiogram No. 695 of March 26, 1916, that agreement existed between the consulate general and myself in regard to the elimination of this reason, as had become clear in a thoroughgoing discussion with the consulate general, together with the consultation of persons interested.

"Regarding the remaining reasons contained in the memorandum of the consulate general of March 24, 1916—the shaping of the rate of exchange, reaction on the sale of the war loan, damage to our credit, the effect of a compliance on the politico-commercial negotiations after the war, the demands in the United States for sales to South America—I had no occasion to make a report to your excellency, wholly aside from the fact that I regarded the reasons as of secondary character and as not valid, since the arguments determinant in this case could be judged better in Berlin than here. I had, therefore, particularly in view of the brevity

imposed by the radiogram and of the circumstances that the American Government will receive knowledge of the content of the telegram, no reason to go into these arguments or to mention the attitude of the consulate general.

"But in so far as the purely formal question whether the consulate general agreed with my proposal came into consideration, apart from the pertinent considerations, I felt that I might presuppose it as known to your excellency that the administrator of the consulate general at this time is accustomed to contradict in every case any suggestion offered by me, whether it is a question of political, politico-commercial, economic, or propagandist measure, and to give his expression to his differing opinion not only without delay in a report to your excellency but also with the extension of his criticism to the policy followed in general by the Imperial Government in reference to the United States publicly in the German Club in the presence of numerous members. I therefore assumed that your excellency would presuppose the opposition of Consul Hossenfelder as given in the present case also, and restricted myself for this reason to the establishment of the agreement on the most important point which was not to be assumed without further explanation.

"I might mention expressly only Consul Hossenfelder, because, to my sincere regret, in view of the state of his health I am no longer able to attribute any importance whatever to the opinion of Mr. Waetzoldt. Mr. Waetzholdt is so reduced in memory, in his judgment, and his ability to work that he is no longer able to cope with the present continual change of conditions and stands under the influence of the arguments occasionally delivered to him, which, according to the nature of things, leads him to share in the opinion of Consul Hossenfelder in regard to reports and memo-

randa in writing. The fact that he also signed the memorandum in regard to dyestuffs can not be taken into consideration. Characteristic in this regard is the reference to Mr. Waetzoldt's opinion in the report of the consulate general of April 26, 1916—Jr. No. 4612—concerning the reaction of the release of dyestuffs on public opinion here, since Mr. Waetzoldt a few days later, at a meeting of the committee on dyestuffs importers, representatives of the Republic Trading Corporation and their attorneys, agreed to the contrary (opposite) opinion.

"The German reproduction of the note anent the question of coal-tar dyes contained in the New York Staats-Zeitung of April 21, 1916, is a retranslation from the English text. The passage in question runs as follows in the original note:

" 'Under these conditions the Imperial Government if need be, is even ready to work to the end that the German chemical factories, in so far as it is at all compatible with the conditions, be relieved of other work and produce those colors which are needed with especial urgency in the American market.'

"For the comprehension of this declaration I may observe that the purpose of my proposal to sanction the exportation of dyestuffs was either to achieve the politico-financial effects bound up with it or—and this was from the outset the more probable case—to shove the blame for the nondelivery of dyestuffs upon England. The purpose of the measure was therefore in its essentials a political one in so far as the deep-rooted dissatisfaction, which embraced wide groups, on account of the refusal to release German dyestuffs should be done away with and a convenient means of agitation be snatched from the English. This succeeded in full measure. In order to attain the result, nevertheless, it was necessary in the next place

to prevent our accommodating spirit at the time from being construed as a bluff. In explanation of the former German attitude it had been pleaded here from different sides that Germany was not in a position to deliver dyestuffs for the reason that the chemical factories were overwhelmed with orders for explosive materials. This defense of the German attitude, intelligible especially from the standpoint of importers here, had established itself so well here, it was held up to me among others, even in the State Department, that without a corresponding counterstatement every change of Germany in her attitude hitherto would have been construed as a disloyal deception.

"From the objective point of view there was no objection to the declaration in so far as, in consequence of its nonobligatory wording, its execution depended from the outset of the free discretion of the German Government. In what I, with such a declaration, went beyond the authority conferred upon me, I am not able to comprehend. I feel justified in regarding it as my task to bring a communication ordered by you before the American Government in that form which exerts the greatest possible influence in our favor on public opinion, presupposed that no inadmissible objective concessions are made thereby. It depends so much the more on a corresponding form since, as your Excellency knows, official notes on the part of the Germans are at this time the only effective means of influencing public opinion in this country. It is, therefore, of the greatest importance that such notes receive that wording which, according to a profound knowledge and appreciation of conditions here, appears necessary.

BERNSTORFF."

DEFENDANT'S EXHIBIT No. 76.

LETTER FROM MR. KUTTROFF TO MR. ALBERT.

New York, September 20, 1916.

Very honored Mr. Councillor: I am in possession of your honored communication of yesterday. I have not forgotten your wish to receive a memorandum on the anticipated influence, which the conditions brought about by the new tax law will have on the dyestuff business, and will take pleasure in sending it to you within a few days.

With regards,

Yours respectfully,

ADOLF KUTTROFF.

DEFENDANT'S EXHIBIT No. 77.

REPORT BY DR. SCHWEITZER TO COUNT VON BERNSTORFF.

To his excellency, the Imperial Ambassador, Count von Bernstorff,

Washington, D. C.

(Translated by J. P. Hoskins.)

The influence of the new customs tariff and its prospective effect on German importation, and on the development of the American industry into an expert industry, and on the chances of the American dyestuff industry in the world market must be considered from two points of view:

1. *During a long war.*—Should the war still continue for years, then, of course, the industry here would be very much furthered and would have a great boom. The United States does not lack raw materials for the manufacture of dyestuffs of any kind what-

soever. The only product necessary for manufacture that must be imported is saltpeter. The question of price does not play any part in this either, for as long as dyestuffs can not be imported and must be produced here, the question, whether the price of manufacture is higher or lower makes no difference. A longer war will bring the further danger that the plants can be amortized from the great earnings which can be made, and that the factories after the peace can carry on competition with the German dyestuffs more easily.

The difficulties in manufacture, which are incomparably greater in the manufacture of intermediate products than in the manufacture of dyestuffs from imported derivatives, will be gradually overcome. The greatest lack is that of technically trained chemists. It seems that American industry is trying to emancipate itself in this respect, by importing chemists from Switzerland. One of the largest of the newly founded factories is said to have engaged, together with 30 chemists, Maurice Ceresole who was lately professor of technical chemistry at the University of Zurich, and formerly manager of the French branch of the Baden Aniline and Soda Factory, and had worked still earlier, together with myself, in the Badische Aniline- und Soda fabrik in Ludwigshafen, in order to help build up the American dyestuffs industry here. I have not yet succeeded in finding out which factory has employed these chemists.

How difficult the production of derivatives is, is apparent from a letter which was sent to an American manufacturer by the French branch of the Badische Aniline-und Soda fabrik, on September 13, 1915, i. e., over a year after the outbreak of the war, and which in the translation runs as follows:

"We are purchasers of beta-naphthel, beta-naphrylamine, dyphenylamine, dimethyaniline. Will you please tell me whether you sell these products, and in

case you do, please inform us of your conditions and the quantities you can offer us.

"At the same time we beg you to inform us of other raw materials of interest for the manufacture of dyestuffs which you may have to offer us, aside from those mentioned above.

"In case your answer should be negative, we should be obliged to you if you would kindly indicate to us the address of firms to whom we could address ourselves with prospect of success."

The contents of this letter proves that the branch of the Badische Anilin-und Soda fabrik, which has existed since that time, to be sure from derivatives which were delivered by the manufactory in Ludwigshafen, could not itself manufacture such simple intermediate products as beta-naphthel, beta-naphthylamine, diphenylamine, and dimethylaniline. This branch had, besides, the advantage that chemists stood at its disposal which had been trained in the German factory and had been sent by the same to France in order to produce as serviceable dyestuffs as those manufactured in Germany.

The manufacture of the derivatives offers much greater difficulties for an industry still in the process of development, for the reason that such an incredibly large variety of products is necessary. In a well-developed industry, like that of the Germans, a technical use is found in the end for all these products. In a less well-developed industry and in an industry which is only in the process of development, great hindrances stand in the way of the utilization of these derivatives; many can not be used at all, and thus become waste products. The price of these derivatives which can be utilized is thereby increased to an incredible degree. In order to make the manufacture and utilization of these derivatives more graphic I subjoin the

inclosed table, which shows how many derivatives of a single anthracite coal tar raw product—namely, nathaline—are combined with a single basic substance, benzidine, in order to form dyestuffs. In a well-developed industry all these products are manufactured and ultimately find utilization. Those who names appear in quadrates are used directly for the manufacture of colors; those which are inclosed in ovals are at the present time not yet utilized but are subjects of scientific investigation and will ultimately find suitable utilization.

The manufacture of derivatives stands in Germany on such an incredibly high plane that the prices for the manufactured articles are very low. It would take American industry many, many years before the same, even if it will ever be possible at all, could produce these derivatives as shapely as German industry does. In order to show these differences of price, the following examples may be cited:

	It cost in 1908 in Germany per pound	Imported to America under the tariff at that time
Aniline oil	$9.28	$11.60
Paranitraniline	16.00	24.00
H-acid	23.29	34.80
Alpha-naphthylamine	6.20	7.75
R salt	9.68	14.50
Amido-G-salt	17.60	26.75
Freund acid	11.60	17.25
Cleve acid	11.60	17.25
Gamma	29.36	44.00
Salicylic acid	12.06	26.01
Tolidine	26.40	33.00
Benzidine	24.20	30.26

These are figures which American industry will never attain. It can be assumed with certainty that the most of these products can not be manufactured here at three to four times the price.

The wonderfully developed technique of derivatives will, therefore, for many years to come give German industry a preponderance over all other lands in which the derivative industry has first to be built up.

2. *After the peace.*—The question, what prospective effect the customs duties will have on German importation, on the development of American industry into an exporting industry, and upon its chances in the world market, can be answered by a single argument:

The new tariff divides the products used and manufactured in the dyestuffs industry into three groups—raw products, half products (derivatives), and dyes. While the raw products are imported free of duty, on the half products and the dyes, in addition to an ad valorem duty, a specific duty of 2½ cents per pound and 5 cents per pound for the dyestuffs is levied.

Happily, the following dyes are excluded from this specific duty: "Except natural and synthetic alizarin and dyes obtained from alizarin, anthracene, and carbazel, natural and synthetic indigo and all indigoids, whether or not obtained from indigo, and medicinals and flavors." This exception may well become the sheet anchor of the German industry. The dyestuffs which are excepted from this specific duty are the so-called vat dyes, and these vat dyes are a comparatively modern achievement of the German dye technique and are in general regarded as the most genuine dyes.

The preeminent enduring qualities of these products have already brought it about, and will do it even more so in the future than the older anthracite coal-tar dyes, which in many respects are inferior to the vat dyes, will be driven from the market. The manu-

facture of these vat dyes is very complicated and can be undertaken only in a very highly developed industry. It is wholly out of the question that a new industry like the American can take up the manufacture of these vat dyestuffs, and it may well take a very long time before the dyestuff industry outside of Germany can concern itself with the manufacture of these complicated products. Here the very greatest exertions will not make it possible to cope with the competition of Germany. In our considerations it is of still further importance that these vat dyes are much dearer than the ordinary anthracite coal-tar dyestuffs, which is readily explicable in view of the difficulties of manufacture. But in spite of this higher price, the vat dyestuffs, on account of superior tinctorial qualities, are finding a more and more widely extended sphere of application in all fields of the textile, leather, paper, etc., industry.

The history of American tariff legislation has shown that in general a protective tariff of 30 per cent ad valorem does not afford sufficient protection to create an American industry. If this was the case with the old anthracite coal-tar dyestuffs, of which only a few staple kinds were ever manufactured here, and these for the most part from derivatives which were imported from Germany, a protective tariff of 30 per cent is, of course, absolutely insufficient for the most complicated vat dyestuffs.

In recognition of this fact the new tariff provides the specific duties in order to provide a far greater protection for the American industry.

But the new tariff now specifies the following in regard to the specific duties:

"But, if at the expiration of five years from the date of the passage of this act, the President finds that there is not being manufactured or produced within the United States as much as 60 per cent in value

of the domestic consumption of the articles mentioned in Group II and III of Section 500, he shall by proclamation so declare, whereupon the special duties imposed by this section on such articles shall no longer be assessed, levied or collected."

Here is where the German industry must apply the lever. It must, in any case, of these vat dyes which must be regarded as the "highest quality" goods of the industry, dispose of in the American market more than 40 per cent of the total consumption in derivatives and dyestuffs, in order that the President will be in the position to abolish the specific duties. If this is actually made possible, and the President must abolish these specfic duties, then the German industry will be in the same position as before the war, and has only to deal with the duty of 30 per cent ad valorem, which, as has already been elucidated above, was insufficient in the past to create an American industry.

That it should be as easy as child play for German industry to sell as much vat dyestuffs in the United States that the value of the same will amount to "60 per cent in value of the domestic consumption of the article mentioned in Group II and III of Section 500," is apparent from the following considerations.

1. The vat dyestuffs have in the past, and will even more so in the future, supplant the old anthracite coal-tar dyestuffs.

2. The money value of the vat dyestuffs is uncommonly higher than the money value of the old anthracite coal-tar dyestuffs.

3. The importation from Germany of these vat dyes amounts to-day already to 27.63 per cent of the money value of the total dyestuffs importation.

From the statements of the Chemical Journal of

the year 1914, we gather for the year 1913 the following figures for imports into the United States:

		Per cent of whole	
Indigo	$1,316,913	13.08	
Alizarian	178,587	1.77	
Antracene dyestuffs	1,207,037	12.78	27.63
Aniline dyestuffs	7,288,471	72.40	
Total	10,071,008	100.03	

In this connection, however, we must pay regard to the fact that Germany in the year 1913 exported to the United States derivatives to the value of $1,086,300. The foregoing percentage of 27.63 is somewhat lowered thereby. On the other hand, the production of the old aniline dyestuffs out of derivatives which have been imported from Germany would naturally decrease from the increased exportation of vat dyes, so that in our reckoning the value of the derivatives can, in fact, be entirely neglected.

The high price of vat dyes, which is, on the average, four or five times as much as that of the old aniline dyestuff consumption. From a recently published list it turns out that 511 dyes to the value of $7,500,000 have been imported into America; that is, the average import value of a dye amounts to $14,000. In this list four vat dyes are given which, altogether, were worth $214,000; so that the average price of $14,000 for dyestuffs, in the case of all dyestuffs rises to about $50,000 for the vat dyes, i. e., amount to about four times the average value.

When the time shall have come that the German industry will import more than 40 per cent of the vat dyes, and in America less than 80 per cent of the value of the domestic consumption will be manufactured, then great difficulties in the calculation of these

figures will emerge, and it will depend on the party politics of the President at that time whether he will make an honest effort to abolish the specific duty or not. How is this "value of the domestic consumption" to be reckoned? How will the customs prices be taken into consideration in connection with the freight rates and with the expenses of insurance and of business? In the case of the domestic industry, how will the expenditures for amortization for general business expenses, trade-mark, and patent ownership be counted in the calculation?

From these arguments it is clear that the salvation of the German dyestuff industry is to be sought in the development of vat dyestuffs chemistry. The tendency to develop this field to the highest degree possible existed already before the outbreak of the war. The new tariff brings, then, no change in this line. For the industry after the war also no change would arise in this regard, since in any case Germany will be compelled to manufacture and to export high-grade goods in the entire industrial field in contrast to articles demanded in large quantities, which can, little by little, be produced in all countries.

In the competition in the field of goods demanded in quantities German industry will in the end not fare much worse under the new tariff, since by the manufacture of derivatives forced upon American industry the dyestuff manufactured thereof, will stand them at a much dearer price, so that the old tariff rate of 30 per cent ad valorem will mean a still smaller protection for the American industry. This will not, of course, come completely to light until the specific duties have been abolished; but even if these specific duties are not abolished, the higher prices of derivatives will tend more and more to eliminate the difference between the protection which the old percentage of 30 per cent plus specific duties afford.

DEFENDANT'S EXHIBIT No. 78.

The German Dye Factories.

(Lord Moulton on Their War-Time Transformation.)

"Speaking at the annual dinner of the Society of Dyers and Colourists at Bradford on Friday of last week, March 21, Lord Moulton said that in his capacity as director of explosives supply he had to nominate a commission to go out to see the great chemical factories of Germany which were situated in the occupied zones along the Rhine, and when the members came back he got their reports, and, what was much better, he discussed with them what they had seen; and he had a picture which filled him with dismay. He was told that those chemical factories had been working during the war solely for the purpose of the war.

"They had made explosives in enormous quantities, but what, to him, was much more serious, he found they had been making those devilish poison gasses in quantities as large as the Germans would ever want, and they had made them in the plant ordinarily used for chemical products often without changing one single item of plant. The operations which made the dyes, wonderful as the results were, could be classed under very few heads. The plant could be made on standard lines, and when they found that those plants intended to be used for peaceful purposes were capable of turning out the vilest of all offensive means without any change whatever, they realized what a terrible danger it was for England that these factories should exist on such an enormous scale, closely united one with another, ready at any moment, should the evil intention come to them, of being the very fountain of all that was needed for the most ferocious methods. This had entirely resulted from the success of the Germans in dealing with the dye industry during the last 20, 30, or 40 years.

"If equal factories had existed with us, we should have been able at a moment's call to turn out for the defense of our country and for repelling the insidious attacks made by Germany, more war material, and the period of the war would have been a trifle compared with what it had been. The consequence was that it was absolutely necessary that England should have a large and flourishing dye industry for the making of dyes. If there were a large and flourishing dye industry for the utilization of those dyes, it was through the work of dyers that our textile industries were freed from foreign control. It was idle to think that the mere production of those dyes would make us safe. If we wanted to back our textile industries, if we wanted to prevent Germany continuing to carry on the prosperity which our lack of enterprise and lack of competition had permitted them to have, we must certainly not be at their mercy in future years. We could only establish those industries if dyers took to heart this lesson, and if they, by their skill and by their mastery of the great color industry, made our textile industries in the point of dyeing which was vital to them, not only utterly independent of any foreign supplies, but to take the position they ought to take as the highest in quality and the lowest in price of all the world."

DEFENDANT'S EXHIBIT No. 79.

ARTICLE ENTITLED "GERMAN BUSINESS METHODS IN THE UNITED STATES" PRINTED IN THE "QUARTERLY REVIEW" OF JULY, 1919, WRITTEN BY C. H. BURR.

GERMAN BUSINESS METHODS IN THE UNITED STATES

The methods of German commerce in pre-war days are familiar in their general outline; the com-

crete details have not often come to the light. This article will endeavor to give the story of how the German dye combination operated in the United States. The account will be given as far as possible in the words of witnesses, taken under oath. These accounts, commented on only for the sake of clarity, should be allowed to speak for themselves.

During the war the dye industry in Germany was united into one great chemical verein, so that the gentle methods hitherto used might become universal and gain completeness of organization and efficiency after the war, when England and the United States should open again their hospitable doors. Before the war, however, there were six leading German dye houses, divided into two groups of three each. The first group consisted of the Badische Anilin und Soda Fabrik (called for short the Badische Co.); the Farbenfabriken vormals Friedrick Bayer & Co. (called the Elberfeld or Farbenfabriken Co.); and the Aktiengesellschaft fur Anilinfabrikation (known as the Berlin Co.) These three companies pooled their profits in the respective proportions of 43 per cent, 43 per cent, and 14 per cent. They were controlled by a cartel and met for fixing prices, determining policy, etc. The second group consisted of Farbwerke vormals Meister, Lucius und Brunner (known as the Hoechst Co.); Leopold Casselle & Co.; and Kalle & Co. These three concerns were knit together rather more loosely than the first combination and their unity of action depended mostly on interchange of share capital.

About two years before the war an internal difference manifested itself when the accounts for the preceding year were presented to the pool. The Elberfeld Co. claimed an allowance of something like $700,000 for "graft" payments made in the United States.

The other partners objected to the amount, not because they were ultraconscientious nor because the amount, if really expended, was excessive, but because vouchers were not presented with ideal German completeness; and the notion seems to have been suggested that foreign agents and managers might have made an error in the calculation, resulting in unintended personal benefit. However this may be, a little private investigation was made by one company in order to ascertain whether the dyers and ultimate recipients of the "graft" were really getting what they were entitled to. The investigation as will happen sometimes with the best-regulated inquiries, got a little out of bounds. The result was a series of suits and a general explosion of indignation. From the evidence collected under oath in the inquiry the following excerpts have been made. It should be noted, in order to reassure the British reader, that the convention called under the cartel entered on its minutes the following resolution:

"*Resolved,* That henceforth bribery shall be abolished except in the United States and in Russia.

The operations of the Dye Trust in the States can best be examined in the words of the witnesses themselves. In explanation it may, however, be added that these companies maintained their American agencies under their own control; that the Elberfeld Co., which had expended the $700,000, was extremely active among the mills in Philadelphia; and that Mr. Keppelman was its manager. For convenience, the evidence will be grouped, first, with reference to the bookkeeping methods of handling the matter adopted to secure, so far as possible, proper profits and proper accounting to the principals in Germany; second, the distribution of "graft"; and third, certain incidental activities,

such as chemical means of dealing with rivals and persuasive invitations on board a yacht.

With respect to bookkeeping methods, the problem was a difficult one. It was desirable to secure large prices for the dyestuffs sold, so as to afford a margin for "graft" and allow of proper accounting in addition. It was obvious that this must be done not only by adulteration but by misbranding the goods so that comparisons in prices would be rendered impossible and awkward disclosures would be avoided. A system, therefore, based on selling the same thing to A by one name and to B, C, and D by different names, on allowances for different degrees of adulteration, and on keeping accurate accounts so that the dyers should receive the correct amounts of "graft," would necessarily be complicated, especially since care had to be taken that each party should see only what it was desirable he should see. The thoroughness of the German mind and the praiseworthy ingenuity and care with which it triumphed over these difficulties appear in the following evidence of Clarence C. Du Plaine, bookkeeper and order clerk in the Elberfeld Co.:

"My duties as order clerk, besides the making out of the orders for goods to be shipped, were to make out the 'new-thing sheets,' post the 'new-thing cards,' post the salesmen's price books and price lists, and also to keep my own set of price cards, from which I ascertained the prices to be charged as well as the character of the goods.

"The price books would show the limit selling price for the dyes of the Farbenfabriken. The price cards would show—a set of cards for each customer—the prices which the customer was paying for the colors he bought, the real or trade name of the color as distinguished from the name under which he may have been buying it, and also the extent to which the

color was reduced or adulterated, if such reduction was being done.

"The 'new-thing sheets' were kept for the purpose of keeping track of all new colors that were bought by the various customers, also any change in the price of the goods they had been buying. These sheets were, I should say, as near as I can remember their size, about 8 inches square, and ruled with columns, first for the fictitious name, then the real name of the color, then a small column for the price charged, and a wider column at the extreme right-hand side. The name of the customer was not written on these sheets, but a small slip of paper with such customer's name on it was pinned to the sheet.

"Miss Gaul would do all the figuring out of the graft to be paid to the dyers in Mr. Keppelman's office, her desk being in the corner of said office toward Market Street. . . . After these 'new-thing sheets' were taken to Miss Gaul I never saw them again; so presumably they were destroyed after they had served their purposes of determining the amount of graft to be paid the dyer. The 'new-thing cards' were a permanent record of any change in the name of a color, a fictitious name substituted for the real or trade name of the color, or any reduction in strength. No price appeared on the 'new-thing cards.' A regular code form was used to designate the amount the color was reduced, so that to the ordinary observer the card would not convey the actual strength of the color sold.

"The method I pursued in making out the order was as follows: Upon the receipt of the order, either through the medium of the mails, or the telephone or brought in by the different salesmen, I would consult my price cards, which were kept in four or five drawers, a set for each customer. In many cases these orders would be for dyestuffs known to the customer

under a fictitious name; that is, names not generally known to the trade. The price cards would show the fictitious name, the real or trade name of the color, and the price to be charged.

"A long blank or form was used on which to transcribe the orders so given, with columns for the fictitious name, the correct name, the price to be charged, the gross, tare, and net weights of the goods and the means of shipment to the customer. After filling in on the order blank, in the proper places, the fictitious name, the real name and the price to be charged for the goods ordered, I would give the order to the shipping department. The shipping clerk at that time was———; assistant, ——— Schneider. They would know just what color to send the customer from the second column on the order blank, for that contained the real name of the color ordered by the customer.

"The shipper would erase from the packages (in cases where a keg or barrel had been ordered) by means of red paint, painting over the whole head of the keg or barrel as the case may be, thus erasing the correct name of the color (for all such packages had the trade name of the color painted on the head of the package in black stenciling ink), and substitute in its place the fictitious name of the color by which it was known to the customer. After weighing the packages to learn the gross, tare, and net weight, these would be inserted by the shipper or his assistant in the proper spaces on the order, and the means of shipment.

"After this the order was sent to the bill clerk, whose duty it was to bill and charge the goods sent to the various customers. . . . The method of billing and charging was as follows: Quadruplicate copies of all charges to customers were made the original being sales sheets, one of which was retained

in the Philadelphia office for the matter of bookkeeping and record, the other two sent to the New York office, who in turn sent one of these copies to the home office at Elberfeld, Germany.

"In cases where fictitious names had been given to the dyestuffs that were to be billed, when it came to the billing the fictitious name was written by means of a typewriter of the billing variety on the invoice and the impression conveyed of such writing to the underlying three sales sheets by means of carbon sheets. Then a piece of paper would be laid over the invoice, the typewriter spaced on space and the real or trade name of the color written. No impression of this latter writing would be made on the invoice, as the paper intervened between the type and the invoice, but this writing of the real or trade name of the color would be conveyed by means of the carbon sheets to the three underlying sales sheets. In this manner no inkling of the true name and character of the dyestuff bought was given to the customer, but a record was made on the sales sheets of the true as well as the fictitious name of the goods. After this the piece of paper would be removed from the typewriter and destroyed. Then, after spacing the typewriter properly, the gross, tare, and net weights of the dyestuffs were inserted on the invoice, together with the price to be charged for the goods and the final extension. By way of illustration, note the following:

"One keg of fast yellow S. C. is chinoline yellow;
115-15-100 pounds, at $1.10 ..... $110

"All of the above specimen charge except 'is chinoline yellow' would be written in the body of the invoice, for the paper inserted over the invoice, as stated before, would take the impression of 'is chinoline yellow,' which impression or writing could and

would be destroyed after removal of the paper from the typewriter. This notation, however, would be conveyed to the three underlying sales sheets by means of the intervening carbon paper and kept as a matter of bookkeeping and record in the various offices of the Farbenfabriken Co., viz., the Philadelphia office, the New York office, and the home office at Elberfeld, Germany.

"The ledger cards were about 10 to 12 inches and were arranged as an ordinary ledger, a column for debits and one for credits. To them was clipped, by means of an ordinary paper clip, a separate card that was known as the 'Is card.' These latter were about 4 inches wide and as long as the ledger cards, and they were fastened to the ledger cards by no more premanent fastening than the paper clips. The object of this temporary means of fastening will be explained later. The lateral lines of the 'Is cards' corresponded exactly with those of the ledger cards, so that anything written, say, on the fifth line, for example, would be exactly opposite or in juxtaposition to writing on the fifth line of the ledger cards. The fictitious name of the dyestuff sold would be entered on the ledger card, together with the price charged and the extension as taken from the sales sheet; then on the 'Is cards' attached to the ledger card would be entered the correct or trade name of the color, so that the fictitious name on the ledger card and the real or trade name of the 'Is card' would be exactly opposite one another.

"The object of the 'is cards' was primarily for means of record, and they could be detached from the ledger card at will at any time. Also if a customer would come to the office and would wish to see how his account stood on the books of the Farbenfabriken Co., the 'is card' could be quickly detached from the ledger card and the latter shown to the customer, and he

would be none the wiser as to the exact character and name of the goods he was buying.

"I remember one particular dyestuff of which the D——— firm bought a good deal. 'Brilliant black BB.' This was a fictitious name given to naphthylamine black 4BK. The market price of the latter color was 21 cents, yet, under its fictitious name D———, was paying 85 cents a pound, and they used a good deal of it, at least three to five hundred pounds each week. On my order blank I would insert on the first column one keg or barrel, as the case might be, of brilliant black BB, in the next column the correct or trade name of the color—that is, naphthylamine black 4BK—so that the shipper would know exactly what to send D———, though they would not know the exact nature of the color they were getting, thinking they were using a high-priced dye when in reality it was a cheap one.

"All these transactions, being typical, would be entered on the 'new thing' sheets, which in time would find their way to Miss Gaul or Mr. Keppelman, and the graft to be paid for such fraudulent dealings would be figured out accordingly and paid to the dyer, who was countenancing such transactions. I remember Mr. McNeil coming to the office on several occasions and the men about the place speculating on the amount of graft he would be paid.

"It was also one of my duties to telephone all orders for goods that we did not have in stock here in Philadelphia to the New York office, and, of course, any goods that were ordered that had to be reduced in strength and quality. Also it was customary to wire to the New York office some of the orders, and this was all done in code, odd and peculiar names being used to designate the various colors and the amount of reductions, so that to the outsider these wires would be abso-

lutely unintelligible. Of course, this was done to keep their methods secret to the outside world."

John Cunning stated that he went first as errand boy to the Elberfeld Co. and gradually worked up until he "had charge of the sample room." He continued:

"In the sample room my duties were to tag the samples, send samples out, take care of samples and, whenever necessary, to retag samples. I would file these samples away in my room with the tag on them, showing their proper names, and whenever these samples would be sent to the mills buying those particular dyes, I would take off the tag showing the real name and substitute a tag showing the name and names under which these dyes were sold to this particular mill.

"I also sometimes saw the shipping orders under which the dyestuffs were sent out to the mills. I remember one of these orders was for the carpet mills of the D——s, and under this shipping order Congo-Corinth G was sold to the D——s for a direct red; in other words, everybody knows Congo colors in the dye trade, and they wanted to pretend that this was a direct pink or a direct red. A direct pink or a direct red is almost anything or is apt to be any color, and no one would know what it was in the trade, but Congo-Corinth they would. The price of Congo-Corinth was known and fixed, but for a direct red or pink they could give almost any price.

The foregoing extracts show how the bookkeeping was elaborated and perfected to meet the exigencies of "peaceful penetration." It will be of interest now to learn how the bribery payments were calculated and made. But first we may glance at the methods adopted by the Elberfeld Co. in order to supply proper vouchers to the New York office and to the home office in Germany. William Voris Gundy stated:

"The Farben people also had in their Philadel-

phia office, as part of their accounts, what is known as 'P' slips. These 'P' slips had on them the date the sale was made to a particular mill, the name of the dyestuffs under which the dye was sold, the quantity, and the amount due to the dyer as his graft or commission; and then there was a separate column in which the salesman, or whoever paid this graft, would fill in the date that this graft or commission was paid to the dyer.

"This 'P' slip was about 9 inches by 6 inches, white paper, and ruled by lines with different columns into which these things were placed. After the graft was paid to the dyer, this 'P' slip, which had previously been given to the salesman in order to pay the right amount of graft to the dyer would be returned or turned in by the salesman to the Philadelphia office. None of these papers would be seen by the dyers themselves, but (they) were only known to the employees of the Farben people. The only one of these papers which would come into the possession of the salesman would be the last paper named—the 'P' slip—and this only temporarily, when he would have to turn it in after payment had been made. Sometimes even the 'P' slip would not come into the salesman's possession, because Mr. Keppelman, the local manager, often made these payments himself to the dyers either at their houses or at a place which had been mutually agreed upon by appointment.

"In the list of firms which I have furnished, where I paid graft to the dyers in person by reason of money furnished me by Mr. Keppelman, is the firm of the Gass Dyeing & Finishing Works, which was located on Ontario Street, near F Street, Kensington. I mention this firm because this a most notorious example of the injury that can be accomplished by this system of paying graft to the dyers. This firm was finally pushed to the wall and failed a few years ago. The dyer for

this firm was a man by the name of McClintock—I think his first name was Harry, but I am not sure. McClintock was not paid all the graft to which he was entitled, according to the prices charged this firm on the bills for dyestuffs furnished them. McClintock was actually paid never less than 10 and sometimes 15 cents or more a pound. According to the size of the bills for dyestuffs, sold (to) the Gass Dyeing & Finishing Works, however, McClintock really was entitled to 25 or 30 cents a pound; but on account of the firm being rather slow payers no more than 10 or 15 cents a pound was paid McClintock; and even the payments which were due him at this rate were withheld, according to my recollection, and McClintock never got these, although the firm was charged for the dyestuffs sold them the proper and market prices, plus the amount of graft which was supposed to be paid to the dyer.

"The custom and rule of the company for which I was the salesman—the Farbenfabriken or Elberfeld Co.—was that, in order to protect themselves, they would charge, as an additional price for the stuff, about the same as they would have to pay the dyer for graft. In other words, the amount paid the dyer for graft was just doubled, and this amount was added to the bill. This was done as a margin for protection for the firm selling the dyestuff, because the risk when it would have to pay the dyer graft, and they wanted an additional margin for contingencies. Some of the old dyers who were on to this insisted that this whole amount be paid to them; that is to say, they wanted the amount which was allowed on the bill for their graft and also the amount which was allowed the firm selling the dyestuffs as margin for their protection. Some of the old dyers demanded the whole amount and got it within a very few cents.

"Another firm which occurs to my mind now as being a glaring example of graft is that of X. Y. & Co.

The head of this firm was Mr. X., and the dyer was A. B., who made a great deal of money by graft, and has since left the firm. I never knew just how much B. got, but on several occasions I took sealed envelopes containing money from Mr. Keppelman to him. B. was a great hand at this graft business. He would order, for instance, 5 barrels of sulphur black, which is a cheap black, and 1 barrel of lizarine black or lizarine green; the sulphur blacks are very cheap and the lizarine colors are expensive. When the order would be filled, as was understood at the time B. would give the order, all the barrels of dyestuffs delivered would be sulphur colors, and B. would see that he got within a very few cents of the difference paid to himself."

Warren W. Hartford, employed for general office work, stated:

"I remember often seeing Miss Gaul, who was Mr. Keppelman's private stenographer and secretary, making out the envelopes to be paid the dyers at a desk at the south side of Mr. Keppelman's private room. She would have the money all spread out before her and would take different amounts and put them in envelopes. . . . Sometimes the dyers would come to the office and get these envelopes, sometimes the salesman would take the envelopes to the dyers. As a general rule, the salesmen would take the envelopes to the dyers. . . .

"Among the dyers whom I remember coming to the office interviewing Mr. Keppelman in his private office are A. B. (see preceding disclosure of Gundy), who was then a dyer of the X. Y. & Co.'s mill; C. D., who was a dyer at the mill of U. V. W. & Co., at Bristol, Pa.; and T. S., who was a dyer for O. P., at Norristown, Pa. I remember the last named, S., distinctly, because, when he would be there, Mr. Keppelman would phone down for the 'new-thing' sheets for

O. P.'s mill, and 'Is' card and ledger card besides. I remember the same thing with regard to C. B. & D. with regard to their mills, of X. Y. & Co. and U. V. W. & Co. When these dyers were in Mr. Keppelman's private office, and sometimes before he would call them up into his private office, Mr. Keppelman would phone down and have us send money up to his office, and I have no doubt this was money which he paid these particular dyers."

The following dyers, among others, confessed to having received bribes, and gave their evidence as follows: Alexander Macfoet, who worked at the P. Woolen Mills, stated:

"During the time I was there dyes were bought from ———, Cassella Colour Co., Farbenfabriken, Berlin Aniline Works, and ———. I do not remember the exact or even approximate amounts, but the books of the company will show this. During the time I was there the ——— loaned me $1,500, and have loaned me $2,000 more since leaving the mills; the Cassella Colour Co. paid me 5, 10, and 15 cents a pound on all dyestuff I bought from them; the Farbenfabriken paid me 20 and 25 cents a pound on all dyestuff I bought from them; the Berlin Aniline Works, through Leander Riddle, their salesman, left envelopes twice at my house with $15 inclosed each time in payment of my purchasing 2 barrels of sulphur black from them; the ——— paid me 10 cents a pound on all dyes obtained by me from them. They would have paid me 15 cents a pound. The reason I did not get the other 5 cents from the ——— was because the Philadelphia manager told me that N. B., the salesman, was giving this 5 cents a pound to Mr. X. Y., the president and manager of the company. Since I have confessed my part in this affair, Mr. Y. denies this, I now believe that he never got this 5 cents, but that N. B. put it into his own pocket."

William Nolan stated:

"I went with the L. L. Hosiery Co. about 1897. During all of this time that I was with them, up to the year 1905, they purchased their dyestuffs from the firm Metz & Co. Some time in, I think 1905, I forget the exact month, a Mr. Edward Sheppard came to my house, No. 720 East Clearfield Street, Philadelphia, and represented to me that he was a salesman for the Farbenfabriken Co., and asked me if I could make a change in the dyeing department of the mill of L. L. Hosiery Co., where I was working, and, instead of buying my dyeing stuff from Metz & Co., buy it from the Farben Co. I did not do the buying of this dyeing stuff myself, but it was bought through the office, then sent to me, and I was in a position to say it could not be used. Mr. Sheppard said to me at this first meeting that if I could succeed in having their dyeing material used instead of that of Metz & Co., whose dyeing material we had been using, he would put the dyeing material in at a certain price, whereas the real and true price would be considerably lower, and the difference between the price at which he would bill it to the L. L. Hosiery Co., and the real price he would hand me in cash as my share of the transaction. I told him to go ahead and send a sample to the office so that I could use it and be in position to recommend its use in the dye shop.

"Within two or three days afterwards a can of, I think, 10 or 20 pounds of dyeing stuff came to the office of the L. L. Hosiery Co., and was sent to me in the dye shop. I tried it and found it to be good stuff, and I recommended to the head of the firm that they use this dyestuff instead of the kind that they had been getting from Metz & Co. This was an acid black dye. From that time on up to the time I left the service of the L. L. Hosiery Co. on my recommendation

they used this acid black dye of the Farbenfabriken Co. They would use on an average about 50 pounds a week—perhaps a little more. I did not know at the time about how much the mill was paying for this a pound, but I have since learned that it was 56 cents a pound.

"About three months after Mr. Sheppard first saw me at my house, and about three months after we began using this dye, according to my agreement with Mr. Sheppard, he came to see me at my house and paid me cash, $50. He explained to me that this was not the whole amount to which I was entitled, but that his boss (meaning Mr. Alfred Keppelman, the Philadelphia manager of the Farbenfabriken Co.) had put up a kick and would only allow him to pay me this much. I afterwards learned that the truth of the matter was that Mr. Sheppard, as the salesman for the Farbenfabriken Co., had been given the entire difference, or nearly the entire difference, between the real price or value of the acid black and the price at which it had been billed to the L. L. Hosiery Co., so that he, Mr. Sheppard, could give the same to me according to his original agreement made with me; but that, instead of doing this, Mr. Sheppard had retained the balance himself and had actually paid me only about one-half the amount he should have paid me according to our agreement.

"From that time up to the time I left the L. L. Hosiery Co. some time in 1909, a period altogether of about three and one-half to four years, at stated intervals of about three months, Mr. Sheppard would call at my house, No. 720 East Clearfield Street, Philadelphia, and pay me in bank notes a sum of money which generally was about $50, claiming that this was my share of the money coming to me under our agreement. During all of this time, too, this sum of money only represented about a half of what I was entitled

to get under the terms of our agreement, and I have been credibly informed since that it really represented only about a third of what I should have gotten."

Richard Pilson stated:

"I never used so very much of the dyestuff of the Farbenfabriken because I never thought very much of it, but at the different mills where I did use it this company paid me 5, 10, and 15 cents a pound for all of their dyestuffs I used. I recall an interesting incident with reference to the dyer employed by A. & Sons ahead of me and whom I succeeded as dyer. His name was Benjamin Rhodes. He had been employed by A. & Sons for about two years. Certain dyestuffs had been sent into the mill from the main office in Baltimore by Mr. A., to be used in the dyeing goods by Mr. Rhodes. Mr. Rhodes thought this dyestuff was not from the people that he wanted to buy from and who were protecting him. He sent it back to Mr. A. and told Mr. A. it was too inferior to be used. Mr. A. kept it at the office in Baltimore for a few weeks and then changed the tags on it. I think he changed the tags to show it was gotten from the Cassella Co., and then sent it back again to the mill and told Mr. Rhodes that it was a new dyestuff gotten from the Cassella Co., and asked him to try it. Mr. Rhodes used it and sent word to Mr. A. that it was the best dyestuff he had ever used. Mr. Rhodes wanted to get his dyestuff from the Cassella Co. Mr. A. himself came to the mill as soon as he got this word—I think it was Monday morning—and shut the door of the mill in the face of Mr. Rhodes, who was discharged from that moment."

Alfred Selmann stated as follows:

"The five companies that I got dyestuff from were as follows: The Farbenfabriken of Elberfeld Co., the Berlin Aniline Works, the Cassella Colour Co., the

——— Co., and the ——— Co. In return for my ordering dyestuff from these particular companies I would receive money or graft from their various agents as follows:

"My arrangement with the Farbenfabriken Co. was that I was to get 5 cents on every pound used from their company: This would amount in the average, in my opinion, to about 200 pounds a week. . . . I therefore received from them $10 on the average every week. This money would be paid me by James Gladfelter, the salesman from the Farbenfabriken of Elberfeld Co., who would come to my house or else send for me to come to a hotel in Reading, and would pay me the money every month. My arrangement with the Berlin Aniline Works was the same, viz., that I should get 5 cents on every pound used from this company. We would use at this works, in my opinion, about 200 pounds, on the average, a week from the Berlin Aniline Works. I received, therefore, from them about $10 each week, which would be paid me monthly by Mr. Feldman, the manager, and at other times by Mr. George Carmany a salesman for that company. This would be paid me also at my house or at a hotel. From the Cassella Colour Co. I do not remember ever receiving anything, as we used very little of their dyestuff."

Leonard K. Townson stated:

"My first personal contact with the dye-goods manufacturers and with their paying the dyers commissions, which are known among the dyers themselves as graft, was at the C. mill, in 1910. I have often been in positions, of course, before this where I have seen this graft handed out and paid but I had never been in a position of authority myself to receive it. I was head dyer at the C. mills. While I was there

I bought dyestuffs from the Cassella Colour Co., the Farbenfabriken of Elberfeld Co., and the Berlin Aniline Works. My business with the Cassella Co. would amount to about 500 pounds a month, and on this they paid me 5 cents a pound. This is considered the safe basis, which all houses are willing to deal under with the dyer. . . . The amount of dyestuff that I used altogether from the Farbenfabriken of Elberfeld Co. was about 200 pounds, upon which they paid me only on the straight basis of 5 cents a pound. . . . The amount of dyestuff I got from the Berlin Aniline Works was 600 pounds altogether, on which they paid me only on the straight basis of $10. The way that color was rated—it being sold as a fast color when it was a direct black—I should have gotten 30 cents a pound on this, according to all the rules of the dyers. Instead I was only paid $10."

Christopher Eisfeld stated:

"During all the time that I worked as boss dyer in the employ of the L. L. Hosiery Co., of Frankford, Philadelphia, I received graft from the Philadelphia office of the Farbenfabriken, of Elberfeld Co., amounting to from 10 to 12 cents per pound on all dyestuffs furnished by that company to my employers, the L. L. Hosiery Co. My employers used, I suppose, about a thousand pounds of black dye every two months and about 60 pounds of various other colors every week. My graft, therefore, which was paid to me by the Farbenfabriken Co., would amount to about $110 every two months on the black dyestuffs and about $6 or $7 each week on the other colors. This graft was paid to me personally by the manager of the Philadelphia office of the Farbenfabriken of Elberfeld Co., Mr. Alfred J. Keppelman. The graft was also sometimes paid to me by the salesmen of the Farbenfabriken of Elberfeld Co., Mr. Litchfield and Mr. Sheppard. It

was always paid to me at my home by these men, at my address, 1906 East Venango Street, Philadelphia.

"From about the middle of July to the middle of October, 1910, Mr. Sheppard, the salesman instead of paying me the graft, which was due me, kept it, and then came around to my house at the above address and paid me only half that which was due me on the dyestuffs that he himself had sold me, keeping the other half for himself. In other words, he offered me $75 and kept $75 himself in his own pocket, whereas the whole $150 was due me on the dyestuffs that Mr. Sheppard had sold my employers.

"I immediately stopped giving any further orders for the dyestuffs to the Farbenfabriken of Elberfeld Co. Whereupon Mr. Litchfield, the other salesman, paid me a visit to find out why his company did not get any more orders, and I explained to him the treatment I had received from Mr. Sheppard, and I also told Mr. Litchfield that I was willing to go to Mr. Keppelman and explain to Mr. Keppelman the treatment Mr. Sheppard was giving me. Mr. Litchfield advised me not to do this, telling me he would fix the matter himself without Mr. Keppelman knowing anything about it. A few days later Mr. Litchfield came to my house and told me that Mr. Sheppard could not pay me all the money that was due to me from him (Sheppard), but asked me if I was willing to accept $5 a week each until I was paid off this graft money that was due me and which Mr. Sheppard had kept. This, of course, was in addition to the other graft money that was due me on the regular dyestuffs I was getting all the time for my employers, and which was being paid me regularly at my house by Mr. Litchfield and Mr. Keppelman. Thinking that Mr. Sheppard might have need of this money himself, I accepted this offer of $5 a week and was paid $5 for two weeks, which was sent me by mail—$5 bill in two envelopes for two

weeks. No letter or writing was in these envelopes. After these two payments, the payments were discontinued, and I waited a few more weeks to give Mr. Sheppard a chance to do the right thing, and then I wrote to Mr. Keppelman a letter explaining my bad treatment by Mr. Sheppard.

"In the meantime I had given Mr. Litchfield an order for 500 pounds of wool black, to be used by my employers in dyeing, for which order Mr. Litchfield paid me $60 two weeks later. Mr. Sheppard, however, did not come up with any further money on account of what he owed, and I again wrote to Mr. Keppelman about it, and Mr. Keppelman wrote me a letter saying he would come up to see me the following Sunday at my house. In the meantime Mr. Litchfield came to my house and paid me $50 from Mr. Sheppard and told me he would bring the $10 balance owed by Mr. Sheppard the next week. I told Mr. Litchfield that I had informed Mr. Keppelman about the matter, and Mr. Litchfield told me I had no business to do this.

"On the following Sunday, about the middle of December, 1910, Mr. Keppelman came to my house and asked me not to give any orders to any other dye house other than the Farbenfabriken of Elberfeld Co., for which he was the manager. He promised me that if I would do this that I would have no further trouble in getting the graft which was due me on all the orders, but that he would bring me the graft due me on all orders himself, personally, to my house every month. This promise he kept; and after this time, every month, during week days, from 8 to 9 in the evening, two or three times each month, Mr. Keppelman came to my house and paid me the graft money which was due to me.

"In the meantime Mr. Litchfield had left the employ of the Farbenfabriken of Elberfeld Co.; and on the following occasion when Mr. Keppelman came

to my house, on a Sunday, about the end of February, 1911, I asked Mr. Keppelman why he had let Mr. Litchfield go but still retained in his employ Mr. Sheppard. Mr. Keppelman told me that Mr. Litchfield was too old to train in the business; that Mr. Sheppard was still young and could be trained as he, Mr. Keppelman, wanted to train him. Mr. Keppelman also told me that he had another salesman who did the same thing as Mr. Sheppard—that is, he retained part of the graft money that was due dyers—but that he had succeeded in training him so that he was now one of the best men in his employ. Mr. Keppelman did not mention his name. On the Sunday that I had this conversation with Mr. Keppelman he did not pay me any graft money. He merely made a personal call to talk with me about matters. On this occasion Mr. Keppelman asked me if I knew a dyer named August Dady. I told him yes; I knew him; and that he had worked as a boss dyer for the P. O. Dyeing & Finishing Works. Then Mr. Keppelman told me that he had had the same trouble with Mr. Litchfield and Mr. Dady as he had had with Mr. Sheppard and myself, and that Mr. Litchfield had not paid over to Mr. Dady all the graft money that was due Mr. Dady for orders for dyestuffs that he had given for the P. O. Dyeing & Finishing Works. Mr. Keppelman also said that it was through trouble such as this that he had lost a great many orders, and that he had a great deal of worriment and unpleasantness over these things.

"While I was at K.'s, A. B. tried to introduce a new dye for another company into the mill, but I stopped this and made the dye streak all the hosiery dyed by it by secretly putting chlorate of potash in the double bottom of the tub. I did this while the chemist for this new company, A. B., and the manager of K.'s were looking on at the experiment, but they

never suspected me. I felt I was justified in doing this not only because I was getting 10 cents a pound from the ——— company, which the new company never offered to pay me, but also because the new dye was not really so good as the old dye and much more expensive in the end. By doing this trick I saved K.'s at least $50 a week."

From Norristown this deponent moved to Utica, N. Y., where he worked for the R. S. Co. and received graft from Kalle & Co.

"I was paid (he states), by Ervin Smith, salesman for Kalle & Co. He paid me from 5 cents a pound to 25 cents a pound for all dyes sold by Kalle & Co. while I was there. When I first went there Smith was afraid to approach me about graft, and he got Albin Benedict, the former dyer for the R. S. Co., to write me three letters so that I would understand about it. Then Smith wrote me, inclosing a slip showing how much was due me for two stuffs sold me by Kalle & Co.—one a softener and the other a cotton yellow. After I was at the R. S. Co. about four months McAdams, the treasurer of the company, sent for me and wanted to know if graft was being paid to me. I said 'No,' and McAdams said he didn't believe me, and wanted me to explain how it was done. I refused, and the upshot was I resigned. After that I couldn't get a job for love or money in New York State, and I believe McAdams must have put me on a black list. I went to several mills in the neighborhood and couldn't get a job.

"After I lost my job at the R. S. Co., Benedict sent for me to come to see him at his hotel at Troy, N. Y., which he had bought out when he retired as a dyer. He sent me my railroad ticket. He was afraid I had betrayed him to the R. S. Co. When I got there he and Smith were waiting for me and demanded the letters they had written to me I said

I had burned them. They said they didn't believe it, and prepared an affidavit for me to sign, stating that I never received graft from Kalle & Co.; that I never received letters from Benedict, etc. All the time they kept giving me whisky until I was about half full. Then they brought in a man who they said was a notary public, but they couldn't find any Bible, and Smith finally said, 'Well, we don't need any Bible; just sign your name here anyway, Chris.' Then I signed it, because I knew it was no good; the man was not a notary, and I couldn't swear because they couldn't find a Bible."

The imagination of the manager of the Farbenfabriken Co. was stirred to activity when other dye competing companies (probably English) threatened to gain a footing. How this emergency was handled appears in the affidavit of William Voris Gundy (already mentioned), who says:

"In addition to the facts that I set forth in my previous affidavits, among other things I now recall that, after going to work for the Farbenfabriken of Elberfeld Co., some time after first working for them —possibly in the year 1904—while I was working as head chemist in the laboratory of the Farbenfabriken, Mr. Keppelman, the manager, sent for me to come up to his office (as he always did when he had instructions for me), and told me that they had been furnishing dyestuffs for a certain mill in Philadelphia—the name of which mill I do not recall—and that the dyer of this mill was working in the interests of the Farbenfabriken and had informed Mr. Keppelman that a competitor was trying to get into this mill and displace the Farbenfabriken's dyestuffs; and Mr. Keppelman asked me to experiment in the laboratory on different chemicals in order to find the

right kind of a chemical, or combination of chemicals, that would successfully spoil and ruin the dyestuffs of this proposed rival. The idea was that this chemical would form a very small package and could be adroitly carried by the dyer, or his second man under his directions, and dropped into the dye tub while they would be casually passing by, and thereby ruin the dye bath.

"I named several chemicals to Mr. Keppelman as being the proper chemicals to do this, and among other things that I named I remember mentioning zinc dust. Mr. Keppelman said these chemicals were all right so far as spoiling the dye was concerned, but that it would go too far and destroy too much of the color, so that the game would be almost instantly detected. On the contrary, Mr. Keppelman said what they wanted was simply something to make it bronzy or streaked, which would be sufficient to affect the dye, ruin the goods dyed, and prevent the competitors from getting the business.

"I then went back to the laboratory and worked on different chemicals and combinations of chemicals; and, according to my present recollection, I worked at this for about a week before I succeeded in finding the right kind of a combination or chemical preparation that would do what Mr. Keppelman wanted. I finally succeeded in effecting and making this preparation, and gave it to Mr. Keppelman. I have no doubt it was sent by him in some way to the dyer and accomplished its proper purpose, as I never heard any objection to it afterwards.

"At other times after this I remember on various occasions, at Mr. Keppelman's request, I would either give him the names of different chemicals that would affect and spoil various dyes, or else I would work on chemical preparations that would accomplish this purpose. These chemicals and preparations would

then be given to him by myself, and I would hear nothing more about them, but I am sure they must have gone out to the dyers as they were intended, and successfully accomplished the purpose for which they were intended.

"Even before I was asked to make this first preparation by Mr. Keppelman, and while I was working in the chemical laboratory, I knew from my predecessor there as head chemist, X. Y., who now lives at ———, that these chemical preparations were being constantly made by the Farbenfabriken in order to spoil the dyestuffs of rival and competing houses.

"Mr. Y. had been there quite a number of years, and was doing this work, among his other duties for the Farbenfabriken, during all the time I was there, and had been doing it before I was employed by them. I think it was about 1904, or thereabouts, that Mr. Y left. I remember that Mr. Y. was somewhat conscientious, and this was one of the duties that he was called upon to do for his employer that he rather balked at."

What happened to the chemicals invented by Mr. Gundy is shown in the evidence of Richard Meyer:

"On many occasions I recall that—although the exact dates do not occur to my mind—dyestuff was brought in and tried from other companies; but on each occasion I so managed that it would either spoil the goods or be so unsatisfactory in its result that the mill believed that the dyestuff from these other companies was no good, and therefore would not buy from them."

Mr. Keppelman kept several motor cars, and the evidence of his chauffeur, C. S. Kille, has interest:

"I remember on very many occasions taking Mr. Keppelman in his automobile to different houses of men whom I afterwards ascertained to be dyers. On

some of these occasions, according to Mr. Keppelman's instructions to me, I would stop the car around the corner from the address where we were going, and Mr. Keppelman would get out and walk around the corner to the house. Mr. Keppelman would tell me on these occasions, if anyone asked whose car it was, not to tell. Among the addresses to which I often took Mr. Keppelman are the following: 1823 East Tioga Street (address of William Fischer, dyer); 1821 East Lippincott Street (address of August Dede, dyer); 1906 East Venango Street (address of Chris. Eisfeld, dyer); 615 Locust Avenue, Germantown (address of Tommy Driscoll, dyer at Bradford Mills); 1347 Hunting Park Avenue (address of Kirgeis, dyer, and William Zipper, chemist for Farbenfabriken); 1217 East Allegheny Avenue (address of E. F. and H. F.); also a lettered street in Olney (address of William Schumann, Jr., dyer for U. V. W.).

"Also I took him down to a beer saloon in Chester —I do not just remember the street—where he met them. On some occasions we would pick men up on the street, who looked to me to be dyers, by appointment, and after taking them around in the automobile for an hour or so would let them out again. I also went to many other addresses with Mr. Keppelman in the car, which addresses I can not just recall now, but will remember them later on, or when my attention is particularly called to them. I remember once taking Mr. Keppelman in the car on a Sunday afternoon out Broad Street, Miss Gaul accompanying him, and at Mr. Keppelman's instructions I stopped the car on Broad Street, and he gave me a long envelope which felt to me as if it was full of "dough," and at Mr. Keppelman's instructions I took this around the corner in Allegheny Avenue—I think it was 1912 Allegheny Avenue—and delivered it in person to Mr. H. F.

"Mr. Keppelman never told me directly what he

was doing, but I had a good idea that he was doing something crooked with these dyes right along, and that these trips, conferences, and appointments were for this purpose. He always carried with him a portfolio bag, and sometimes a black grip, and sometimes had a revolver in the black grip for some purpose."

Mr. Keppelman, who has acquired more or less fame for the ingenuity and thoroughness of his methods, hired a yacht during the summer, whose cruises became popular in certain dye circles and whose career has since attracted, perhaps, undue interest. Modesty made it extremely difficult, except in the close confidence of conversation, to obtain detailed evidence of the courtesy and favors extended during these cruises. But one may gather that, invitations having been sent to certain of the dyers who had large orders in their gift, they would accept and find society which, if not congenial, was intended to be so, on board the yacht. If they objected, suggestion and reflection were sufficient to convince them of the wisdom of silence; if they found the program attractive, there was surely no reason for them to talk. In either case, Mr. Keppelman got the orders for dyes.

C. S. Kille gives us a glimpse of life on board the yacht:

"I also have a distinct recollection of Mr. Keppelman's yacht. He has had three yachts, each one of which has been called the *Ilsa* after his daughter. The yacht he now has is called *Ilsa III.* It has been all winter in winter quarters at Essington, and is now being refitted for the season of 1913. I believe Mr. Keppelman is a member of the Delaware River Yacht Club. I filled different positions on board this yacht, being

sometimes chief engineer and purser and other times acting as brass polisher. Mr. Keppelman would take me along for company, and I remember one night late I was summoned to come on board his yacht in order to take the place of the engineer who had left and gone to Baltimore on a drunk. I have a complete log book which I kept myself for this yacht for 1909. Many parties have been held on board this yacht; and among these parties would sometimes be men who were the managers, superintendents, foremen, or owners of mills at different places and who were either customers of Mr. Keppelman or men whom he wanted to entertain.

"The boat was always well stocked and provided with wines, eatables, and every possible luxury. At these parties they drank whiskey, champagne, wine, and beer. Many times he would have Miss Gaul and her lady friends on board, never Mrs. Keppelman. I remember among these ladies was Miss Isabella Ennis, the manicurist over Fox's flower store, on South Broad Street, just below the Ritz-Carlton Hotel. I do not know whether the others were manicurists or not. They were pretty gay ladies, and altogether they would have quite jolly parties. I remember one time the mate, Albert Carlson, fell overboard and went to the bottom of the river and a man had to fish him out. Both Mr. Keppelman, his guests, and the crew had lively times on board this boat."

As will be gathered from these statements the testimony of Miss Gaul, the private secretary, would have been of the greatest value. Her clever lawyer appreciated this point of view. After a settlement of $100,000 on Mrs. Keppelman a divorce was arranged; and Miss Gaul, as Mr. Keppelman's present wife, can not, under American law, be a witness against him.

The foregoing evidence enables one to see, as on

a stage, an excerpt from the busy and profitable life of German organization. Psychological lessons are not wanting—the degeneration caused among the employees of the German concern themselves, the suggestive complaints of Mr. Keppelman as to difficulties in "training" salesmen, together with the delightfully human picture of Chris Eisfeld, who was willing to make any affidavit because a Bible could not be found. But it is necessary, in closing to recognize the scale on which the German dye industry worked and its methods of adulteration and corruption. Statistics when cited at any length are apt to weary and fail to fix the attention. Let us content ourselves, therefore, with stating that the annual value of the dyes imported into the United States before the war amounted to about $10,000,000, and that, although the general rule was to add 10 per cent for the selling expenses and 10 per cent for the profits of the American distributing managers, the total prices paid by the American consuming mills were almost $25,000,000 yearly, which sum, of course, included the results of "graft" and adulteration. One of the six companies alone claimed credit for $700,000 in graft, and one American mill—the one where 85 cents was paid for a certain black instead of 21 cents—presented figures to the author of this article showing, after graft was eliminated, a yearly reduction of expenditure on dyestuffs from $265,000 to $125,000.

DEFENDANT'S EXHIBIT No. 80.

EXTRACT FROM LETTER OF DR. ALBERT TO DR. SCHWEITZER.

The breadth of high-mindedness with which you at that time immediately entered into the plan has

borne fruit as follows: One and a half million pounds of carbolic acid have been kept from the Allies. Out of this one and a half million pounds of carbolic acid four and one-half million pounds of picric acid can be produced. This tremendous quantity of explosives stuffs has been withheld from the Allies by your contract. In order to give one an idea of this enormous quantity the following figures are of interest:

Four million five hundred thousand pounds equals 2,250 tons of explosives. A railroad freight car is loaded with 20 tons of explosives. The 2,250 tons would, therefore, fill 112 railway cars. A freight train with explosives consist chiefly of 40 freight cars, so that the 4,500,000 pounds of explosives would fill three railroad trains with 40 cars each.

Now, one should picture to himself what a military coup would be accomplished by an army leader if he should succeed in destroying three railroad trains of 40 cars, containing four and a half million pounds of explosives.

Of still greater and more beneficial effect is the support which you have afforded to the purchase of bromine. We have a well-founded hope that, with the exclusion of perhaps small quantities, we shall be in a position to buy up the total production of the country. Bromine, together with chloral, is used in making nitric gases, which are of such great importance in trench warfare. Without bromine these nitric gases are of slight effect; in connection with bromine, they are of terrible effect. Bromine is produced only in the United States and Germany. While, therefore, the material is on hand in satisfactory quantities for the Germans, the Allies are entirely dependent upon importation from America.

DEFENDANT'S EXHIBIT No. 81.

SAMPLE LETTER, USED IN SOLICITING SUBSCRIPTIONS.

Copy

July 16, 1919.

Augusta Drug Co.,
305 8th St.,
Augusta, Ga.

Gentlemen:

The Alien Property Custodian in the course of his investigations into German influences in American industry, made an exhaustive study of their methods in the Chemical Field. This culminated in the formation of The Chemical Foundation, Incorporated, which has taken over some 4500 German Patents relating to the chemical, dye, and allied industries.

Some days ago we mailed you some printed literature relating to The Chemical Foundation, Incorporated, and I am taking this means of again calling your attention to same. For your further information, I am enclosing a copy of the Prospectus, Certificate of Incorporation and a Voting Trust Agreement. A subscription blank is also enclosed.

In view of the importance of this newly formed Corporation, to the whole American Chemical Industry, I trust you will give these plans most careful consideration, and hope you will co-operate with us in our efforts to thoroughly Americanize the Chemical Field.

Very truly yours,

THE CHEMICAL FOUNDATION,
INCORPORATED.

Ass't. Secretary.

FAM/M
Enc.

DEFENDANT'S EXHIBIT No. 82.

STOCKHOLDERS OF THE CHEMICAL FOUNDATION AND WHAT THEY MANUFACTURE.

Alcohol	1
Aluminum & Aluminum Alloys	1
Carbon Products	1
Cellulose Products	1
Ceramic Products	1
Chemical Dealers	2
Chemical Engineers & Research	3
Dyes, Intermediates, Crude Coal Tar Products and Photographic chemicals	28
Electrical Apparatus	3
Explosives	2
Fertilizer	1
Food Products	2
Glassware	1
Heavy Chemicals	25
Metallurgical Products, Iron and Steel	6
Paints & Varnishes	3
Paper	3
Petroleum Oils	1
Pharmaceuticals	28
Plastic Products	2
Platinum, Gold & Silver Products	2
Printing & Lithographic Inks	1
Rare Earths	1
Rugs & Carpets	1
Rubber Products	2
Scientific Society	1
Silk, Silk Dyeing & Printing	2
Steel Products	1
Textile Goods	6

Textile Printers, Dyers & Bleachers	21
Therapeutic & Scientific Apparatus	3
Vegetable Oils & Fats	1
Water Softeners	1
Total	158

1. Abbott Laboratories, The	Pharmaceuticals
2. Althouse Chemical Co., The	Dyes & Intermediates
3. Aluminum Company of America	Aluminum & Aluminum Alloys
4. American Aniline Products, Inc.	Dyes & Intermediates
5. American Cellulose & Chemical Manufacturing Co., Inc., The	Cellulose Products
6. American Chemical Society	Scientific Society
7. American Cotton Oil Company, The	Vegetable Oils, Fats
8. American Platinum Works	Platinum, Gold & Silver Products
9. American Printing Company	Textile Printers & Dyers
10. Aniline Dyes & Chemicals, Inc.	Dyes & Intermediates
11. Armour Fertlizer Works	Fertilizer
12. Arnold Print Works	Textile Printers & Dyers
13. Aspinook Company, The	Textile Printers & Dyers
14. Atlantic Dyestuff Co.	Dyes & Intermediates
15. Atteaux & Co., Inc., F. E.	Dyes & Intermediates
16. Ault & Wiborg Company, The	Printing & Lithographic Inks
17. Baker & Bro., H. J.	Chemical Dealers
18. Baker & Co., Inc.	Platinum, Gold & Silver Products
19. Ball, George A.	Glassware
20. Bancroft & Sons Co., Joseph	Textile Dyers & Printers
21. Barrett Company, The	Coal Tar Crudes & Intermediates, Tar Products
22. Bayer & Company, Inc., The	Pharmaceuticals
23. Bethlehem Steel Company	Steel Products
24. Bischoff & Co., Inc., C.	Dyes, Chemical & Pharmaceutical Dealers
25. Borne, Scrymser Company	Petroleum Oils
26. Bower Chemical Manufacturing Co., Henry	Heavy Chemicals

27. Bronx Company	Textile Dyers & Printers
28. Brown Company	Paper
29. Butterworth-Judson Corporation	Dyes & Intermediates
30. Campbell & Co., John	Dyes & Intermediates
31. Capudine Chemical Co.	Pharmaceuticals
32. Central Dyestuff and Chemical Co.	Dyes & Intermediates
33. Chapal, Antonin	Dyes & Intermediates
34. Cheney Brothers	Silk, Dyers & Printers
35. Citro Chemical Company of America	Pharmaceuticals, Perfumes, Heavy Chemicals
36. Clapp Ammonia Company, B. P.	Heavy Chemicals
37. Comey Company, R. H.	Dyers & Bleachers
38. Commercial Research Company, The	Chemical Research
39. Commonwealth Chemical Corporation	Pharmaceuticals
40. Consolidated Color and Chemical Co.	Dyes & Intermediates
41. Contact Process Company	Heavy Chemicals
42. Crocker, Burbank & Co.	Paper
43. Crozer & Son, Samuel A.	Cotton Goods
44. Davison Chemical Company	Heavy Chemicals
45. Dehls, John C.	Heavy Chemicals
46. Dermatological Research Laboratories, The	Pharmaceuticals
47. Detroit Chemical Works, The	Heavy Chemicals
48. Diamond Alkali Company	Heavy Chemicals
49. Dicks, David Company, Inc.	Dyes & Intermediates
50. Digestive Ferments Co.	Food Products
51. Dorr, John V. M.	Chemical Engineer
52. Dow Chemical Company, The	Dyes, Intermediates, Heavy Chemicals
53. DuPont de Nemours & Company, Inc., E. I.	Explosives, Dyes, Intermediates, Plastics, Heavy Chemicals & Pharmaceuticals
54. Durex Chemical Corporation	Heavy Chemicals & Dyes
55. Durfee, Winthrop C.	Chemical Engineer
56. Dye Products and Chemical Co., Inc.	Dyes & Intermediates
57. Eastern Drug Company	Pharmaceuticals

58. Electric Boat Company	Electrical Boats & Apparatus
59. Electro Bleaching Gas Co.	Heavy Chemicals
60. Engelhard, Charles	Therapeutic & Scientific Apparatus
61. Essenkay Products Company	Rubber Goods
62. Essex Aniline Works, Inc.	Dyes
63. General Bakelite Company	Plastic Products
64. General Ceramics Company	Ceramic Products
65. General Chemical Company	Heavy Chemicals
66. General Electric Company	Electrical Equipment
67. Genesee Pure Food Company, The	Food Products
68. Gilmore, George L.	Textile Dyers & Printers
69. Grasselli Chemical Co., The	Dyes, Intermediates & Heavy Chemicals
70. Hanovia Chemical & Mfg. Co.	Therapeutic & Scientific Apparatus
71. Hardwick & Magee Company	Rugs & Carpets
72. Heller & Merz Co., The	Dyes & Intermediates
73. Hercules Powder Co.	Explosives
74. Herf & Frerichs Chemical Co.	Heavy chemicals
75. Hess, Goldsmith & Co., Inc.	Silk Goods
76. Heyden Chemical Works, The	Pharmaceuticals & Intermediates
77. Hooker Electrochemical Company	Heavy Chemicals
78. Irvington Smelting & Refining Works	Metallurgical Refiners.
79. Isco Chemical Co., Inc.	Heavy Chemicals
80. Johnson & Johnson	Surgical Supplies & Pharmaceuticals
81. Kelly-Springfield Tire Company	Automobile Tires & Rubber Products
82. Klipstein & Sons Co., E. C.	Dyes, Intermediates, Heavy Chemicals
83. Knipe & Sons, Walter E.	Textile Dyers & Printers
84. La Belle Iron Works	Metallurgical Products
85. Lackawanna Steel Company	Steel
86. Lehn & Fink, Inc.	Pharmaceutical & Toilet Articles
87. Lewiston Bleachery & Dye Works	Textile Printing

88. Lilly and Company, Eli	Pharmaceuticals
89. Lindsay Light Company	Intermediates, Rare earths
90. Lonsdale Co.	Window Shade Cloth
91. Lowell Bleachery	Textile Dyers & Printers
92. Lucas & Co., Inc., John	Paints, Varnishes
93. Mallinckrodt Chemical Works	Pharmaceuticals, Heavy Chemicals
94. Marden, Orth & Hastings Company, Inc.	Dyes, Intermediates & Heavy Chemicals
95. Maxwell, Francis T.	Textile Dyers & Printers
96. McKesson & Robbins	Pharmaceuticals
97. Merck & Co.	Pharmaceuticals
98. Merrill Co., The Wm. S.	Pharmaceuticals
99. Merrimac Chemical Co.	Intermediates & Heavy Chemicals
100. Metals Disintegrating Company, Inc.	Metallurgical Products
101. Metz Laboratories, Inc., H. A.	Pharmaceuticals
102. Millville Manufacturing Co., The	Cotton Goods
103. Monroe Drug Company	Dyes, Fharmaceuticals
104. Monsanto Chemical Works	Pharmaceuticals, Heavy Chemicals & Intermediates
105. Morrill, Geo. H.	Printing Inks
106. Mount Hope Finishing Company	Textile Printers & Dyers
107. Mutual Chemical Co. of America	Heavy Chemicals
108. National Ammonia Co.	Heavy Chemicals
109. National Aniline & Chemical Company, Inc.	Dyes, Intermediates, Heavy Chemicals
110. National Electrolytic Co., The	Heavy Chemicals
111. National Silk Dyeing Company	Textile Dyers & Printers
112. Naugatuck Chemical Company, The	Heavy Chemicals
113. New Bedford & Agawam Finishing Co.	Textile Dyers & Printers
114. Newport Chemical Works, Inc.	Dyes, Intermediates, Heavy Chemicals
115. Niagara Alkali Co.	Heavy Chemicals

116. Niagara Electro Chemical Co.	Heavy Chemicals
117. Ohio Chemical and Manufacturing Co., The	Heavy Chemicals
118. Pacific Mills	Cotton Goods
119. Parke, Davis & Company	Pharmaceuticals
120. Patchett Worsted Co.	Worsted Cloth
121. Peerless Color Company	Dyes & Intermediates
122. Pennsylvania Salt Manufacturing Co.	Heavy Chemicals
123. Permutit Company, The	Water Softeners
124. Perth Amboy Chemical Works	Heavy Chemicals
125. Pfizer & Co., Inc., Chas.	Pharmaceuticals
126. Philadelphia Tapestry Mills	Tapestry
127. Philadelphia Textile Machinery Co.	Textile Dyeing Machines
128. Powers-Weightman-Rosengarten Co.	Pharmaceuticals & Heavy Chemicals
129. Rector Chemical Company, Inc.	Pharmaceuticals
130. Republic Iron & Steel Company	Iron Products
131. Rhodia Chemical Company	Pharmaceuticals, Perfumes
132. Roessler & Hasslacher Chemical Company, The	Heavy Chemicals, Pharmaceuticals
133. Sayles Finishing Plants	Textile Dyers & Printers
134. Schieffelin & Co.	Pharmaceuticals
135. Semet-Solvay Company	Heavy Chemicals
136. Sherwin-Williams Co., The	Paints, Varnishes, Dyes
137. Solvay Process Company, The	Heavy Chemicals
138. Squibb & Sons, E. R.	Pharmaceuticals
139. Stearns & Co., Frederick	Pharmaceuticals
140. Stifel & Sons, J. L.	Textile Printers & Dyers
141. Tartar Chemical Works	Organic Chemicals
142. Toch Brothers	Paints, Varnishes
143. Union Bleaching and Finishing Co.	Textile Dyers & Printers
144. Union Carbide & Carbon Co.	Carbon Products
145. United Drug Company	Pharmaceuticals
146. United Piece Dye Works	Textile Dyers & Printers
147. United States Color & Chemical Co., Inc.	Dyes, Intermediates

148. United States Finishing Company, The	Textile Dyers & Printers
149. U. S. Industrial Alcohol Co.	Alcohol
150. Upjohn Company, The	Pharmaceuticals
151. Viscoloide Company, The	Plastic Products
152. Wallau, Inc., George J.	Pharmaceuticals
153. Wanskuck Company	Textile Dyers & Printers
154. Western Electric Company	Electrical equipment
155. West Virginia Pulp & Paper Company	Paper
156. Wolf & Co., Jacques	Dyes, Intermediates, Textile Chemicals
157. Youngstown Sheet and Tube Company, The	Iron Products
158. Zinsser & Co.,	Dyes & Photographic Chemicals

DEFENDANT'S EXHIBIT No. 83. 2583

to form of License Used.
"A"—Original form of License
"B"—New form of License
"C"—Special form of License
"D"—Trademark Agency Agreement.

THE CHEMICAL FOUNDATION, INCORPORATED

STATEMENT OF INCOME ON LICENSES FROM APRIL 10, 1919 TO DECEMBER 31, 1
OR PATENTS AND TRADEMARKS ASSIGNED TO CHEMICAL FOUNDATION, INC.
BY ALIEN PROPERTY CUSTODIAN

mber ense	Name and Address	Product	Royalty Rate	Date of License
1	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Neo-Arsphenamine	5% of gross sales	6/16/19
2	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Arsphenamine	5% of gross sales	6/16/19
3	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Derivatives of Oxyarylarsinic Acids and Process of Making Same	5% of gross sales .	6/16/19
4	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Medicinal Preparations	5% of gross sales	6/16/19
5	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Medicinal Preparations	5% of gross sales	6/16/19
6	Dye Products and Chemical Co., 200 5th Ave., N. Y. C.	Zinc Azonapthol Dye and process of making same. (Salicine Black)	4% of net selling price to 3/31/20 2% of net selling price thereafter	6/18/19
7	Calco Chemical Co., Boundbrook, N. J.	Cinchophen	2½% of net selling price	6/30/19
8-9	John Campbell & Co., 75 Hudson St., N. Y. C.	Hydron Blue Dye	5% of net selling price	7/1/19
10	Radium Luminous Material Corp., 55 Liberty St., N. Y. C.	Anticathode	5% of net selling price	8/1/19
11	Mansfield Co., Framingham, Mass.	Reinforced Paper	1¼% of net selling price	8/8/19
12	Gaskill Chemical Corp., 157 Spencer St., Bklyn., N. Y.	Process for Dyeing Furs, Hairs and the like	5% of net selling price	8/9/19
13	Gaskill Chemical Corp., 157 Spencer St., Bklyn., N. Y.	Process for Dyeing, Furs, Hairs and the like	5% of net selling price	8/9/19
14	Gaskill Chemical Corp., 157 Spencer St., Bklyn., N. Y.	Rodol Dyes	5% of net selling price	8/9/19
15	E. B. Badger & Sons Co., 63 Pitt St., Boston, Mass.	Filling Material for Columns	$200.00 per unit	8/9/19
16	E. C. Klipstein & Sons Co., 654 Greenwich St., N. Y. C.	Salicine Black	5% net selling price to 3/31/20 2% net selling price thereafter	8/9/19
17	E. C. Klipstein & Sons Co., 654 Greenwich St., N. Y. C.	Tanning Material	3% net selling price	8/9/19
18	Safepack Mills, 727 Atlantic Ave., Boston, Mass.	Reinforced Paper	1¼% of net selling price	1/6/20
19	Yocum Laboratories, 324 Academy St., Newark, N. J.	Tanning Material	3% of net selling price	7/30/19
20	Heyl Laboratories, Inc., 437 Barretta St., N. Y. C.	Acriflavine & Proflavine	5% of net selling price	9/9/19
21	The American Cellulose & Chemical Manufacturing Co., Ltd. 681 5th Ave., N. Y. C.	Acetic Anhydride	25% of net saving in cost of manufacture	7/30/19

(Carried Forwa

THE CHEMICAL FOUNDATION, INCORPORATED .

OF INCOME ON LICENSES FROM APRIL 10, 1919 TO DECEMBER 31, 1922
AND TRADEMARKS ASSIGNED TO CHEMICAL FOUNDATION, INC.
BY ALIEN PROPERTY CUSTODIAN

	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
	5% of gross sales	6/16/19	Re. 13848	2/18/30	$ 116.70	$ 100.00	$ 216.70	
	5% of gross sales	6/16/19	1116398	11/10/31	2,145.91	100.00	2,245.91	
s Acids and Process of	5% of gross sales .	6/16/19	986148	3/7/28		100.00	100.00	
	5% of gross sales	6/16/19	1081592	12/16/30		100.00	100.00	
	5% of gross sales	6/16/19	1081897	12/16/30		100.00	100.00	
process of making same.	4% of net selling price to 3/31/20	6/18/19	770177	9/13/21	1,492.07	100.00	1,592.07	Cancelled 6/16/21
			778476	12/27/21				
	2% of net selling price thereafter		807422	12/12/22				
	2½% of net selling price	6/30/19	1045759	11/26/29	6,452.64	100.00	6,552.64	
			1075171	10/7/30				
			1086881	2/10/31				
			1181485	5/2/33				
			1197462	9/5/33				
	5% of net selling price	7/1/19	931598	8/17/26		100.00	100.00	These two (2) licenses considered as one (1) license.
			919572	4/27/26				
	5% of net selling price	8/1/19	1170247	2/1/33		100.00	100.00	Cancelled 6/23/21
	1¼% of net selling price	8/8/19	1169895	2/1/33	6,731.85	100.00	6,831.85	Cancelled 6/9/21
			1197315	9/5/33				
irs and the like	5% of net selling price	8/9/19	1105447	7/28/31		100.00	100.00	
irs and the like	5% of net selling price	8/9/19	1183748	5/16/33	33.98	100.00	133.98	
	5% of net selling price	8/9/19	992947	5/23/28	869.03	100.00	969.03	Cancelled 5/3/21
			1105501	7/28/31				
			1144325	6/22/32				
			1144181	6/22/32				
e	$200.00 per unit	8/9/19	1141266	6/1/32	600.00	100.00	700.00	
	5% net selling price to 3/31/20	8/9/19	770177	9/13/21		100.00	100.00	Cancelled 6/10/21
			778476	12/27/21				
	2% net selling price thereafter		807422	12/12/22				
	3% net selling price	8/9/19	1336759	4/13/37				Cancelled 7/11/21
			1191480	7/18/33				
			1216612	2/20/34				
			1237405	8/21/34				
			1278229	9/10/35				
	1¼% of net selling price	1/6/20	1169895	2/1/33	319.37	66.67	386.04	Cancelled 5/14/21. Does not include income on Mansfield Patent.
			1197315	9/5/33				
	3% of net selling price	7/30/19	1191480	7/18/33	6,709.89	100.00	6,809.89	Cancelled 6/6/21
			1216612	2/20/34				
			1237405	8/21/34				
			1278229	9/10/35				
			1336759	4/13/37				
	5% of net selling price	9/9/19	1005176	10/10/28	595.65	100.00	695.65	Cancelled 4/14/22
	25% of net saving in cost of manufacture	7/30/19	1152098	8/31/32		100.00	100.00	Cancelled 12/11/21
		(Carried Forward)			$26,067.09	$1,866.67	$27,933.76	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate	Dat Lic
				Brough
"A" 22	The American Cellulose & Chemical Manufacturing Co. Ltd 681 5th Ave., N. Y. C.	Artificial Textile Material	1% net selling price for 2 years. After that time to be agreed upon	11/
"A" 23	The American Cellulose & Chemical Manufacturing Co. Ltd 681 5th Ave., N. Y. C.	Cellulose Derivatives	1% net selling price for 2 years. After that time to be agreed upon	11/
"C" 24	Mallinckrodt Chemical Works, St. Louis, Mo.	Neo-Arsphenamine	5% net selling price	11/1
"C" 25	Mallinckrodt Chemical Works, St. Louis, Mo.	Arsphenamine	5% net selling price	11/1
"C" 26	Mallinckrodt Chemical Works, St. Louis, Mo.	For derivatives of Oxyarylarsinic	5% net selling price	11/1
"C" 27	Mallinckrodt Chemical Works, St. Louis, Mo.	Medicinal Preparations	5% net selling price	11/1
"C" 28	Mallinckrodt Chemical Works, St. Louis, Mo.	Medicinal Preparations	5% net selling price	11/1
"C" 29	Aluminum Company of America, Pittsburgh, Pa.	Duralumin	1¢ per lb. Minimum royalty of $5000 yearly	9/29
"C" 30	Upjohn & Co., Kalamazoo, Mich.	Digitalis Extract	5% gross sales	1/24
"A" 31	E. Leitz, Inc., 30 East 18th St., N. Y. C.	Color Measuring Device	10% net selling price	10/1
"A" 32	E. Machlett & Son, 153 East 84th St., N. Y. C.	X Ray Tube	10% net selling price	11/2
"A" 33	Eastman Kodak Co., Rochester, N. Y.	Blue Quinolin Dye Cyanin Dye	$1.00 per gram	12/3
"C" 34-35	Textile Alliance, 45 East 17th St., N. Y. C.	Reparation Dyes	10% net selling price	12/1
"A" 36	Dr. E. M. Sullivan, Woodbury, N. J.	Stable Dry Hydrosulphite	3% net selling price to 10/31/20 2% thereafter	12/1
"A" 37	Merck & Co., 45 Park Pl., N. Y. C.	Fibrolysin (2.3.c.c. tubes) Fibrolysin (Veterinary 11.5 cc tubes)	10% net selling price	12/9/
"A" 38	Merck & Co., 45 Park Pl., N. Y. C.	Iodipin & Bromipin	1% net selling price	12/9/
"A" 39	Merck & Co., 45 Park Pl., N. Y. C.	Diplosal	5% net selling price	12/9/
"A" 40	Merck & Co., 45 Park Pl., N. Y. C.	Optochin (basic) Optochin Hydrochloride	10% net selling price	12/9/
"A" 41	E. I. duPont de Nemours & Co., Inc., Wilmington, Del.	Salicine Black	1% net selling price to 3/31/20 2% thereafter	12/9/
"A" 42	The Shaw Association, Ltd., 616 South Michigan Ave., Chicago, Illinois	Tanning Material	3% net selling price	12/22
"A" 43	Jacques Wolf & Co., Passaic, N. J.	Aldehyde Sulfoxylates	3% net selling price to 10/31/20 2% thereafter	1/14/
"A" 44	The Newport Co. & The Newport Chemical Wks., Milwaukee, Wis.	Derivatives of Salicylic Acid	5% net selling price	1/9/2
"A" 45	The Newport Co. & The Newport Chemical Wks., Milwaukee, Wis.	Acridine	5% net selling price	1/9/2
"A" 46	The Newport Co. & The Newport Chemical Wks., Milwaukee, Wis.	Alizarine	5% net selling price	1/9/2
				Carried F

Income on Licenses (Cont'd)

uct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
	Brought Forward				$26,067.09	$1,866.67	$27,933.76	
l	1% net selling price for 2 years. After that time to be agreed upon	11/3/19	1217028	2/20/34		100.00	100.00	Cancelled 12/1/21.
	1% net selling price for 2 years. After that time to be agreed upon	11/3/19	1188376 1217027	6/20/33 2/20/34		100.00	100.00	Cancelled 12/1/21.
	5% net selling price	11/18/19	Re. 13848	2/18/30		100.00	100.00	
	5% net selling price	11/18/19	1116398	11/10/31		100.00	100.00	
ylarsinic	5% net selling price	11/18/19	986148	3/7/28		100.00	100.00	
	5% net selling price	11/18/19	1081592	12/16/30		100.00	100.00	
	5% net selling price	11/18/19	1081897	12/16/30		100.00	100.00	
	1¢ per lb. Minimum royalty of $5000 yearly	9/29/19	868383 995113 1083903 1130785 1261987	10/15/24 6/13/28 6/6/31 3/9/32 4/9/35	2,500.00		2,500.00	½ royalties to American Duralumin Co. These royalties represent net royalties to the Foundation.
	5% gross sales	1/24/20	943578	12/14/26	94.76	100.00	194.76	
	10% net selling price	10/14/19	998091	7/18/28	1,323.48	100.00	1,423.48	
	10% net selling price	11/22/19	1122011 1218423	12/22/31 3/6/34		100.00	100.00	
	$1.00 per gram	12/3/19	805143 844804	11/21/22 2/19/24	227.45	100.00	327.45	
	10% net selling price	12/12/19	Reparation Dyes					This is imported product.
	3% net selling price to 10/31/20 2% thereafter	12/11/19	795755	7/25/22		100.00	100.00	Expires July 25, 1922.
e	10% net selling price	12/9/19	868204	10/15/24		100.00	100.00	
1.5 cc tubes)	1% net selling price	12/9/19	774224	11/8/21		100.00	100.00	Expired Nov. 8, 1921.
	5% net selling price	12/9/19	922995	5/25/26	117.06	100.00	217.06	
	10% net selling price	12/9/19	1062203	5/20/30	62.66	100.00	162.66	
	1% net selling price to 3/31/20 2% thereafter	12/9/19	770177 778476 807422	9/13/21 12/27/21 12/12/22	2,501.99	100.00	2,601.99	Cancelled Sept. 1, 1921.
	3% net selling price	12/22/19	1191480 1216612 1237405 1278229 1336759	7/18/33 2/20/34 8/21/34 9/10/35 4/13/37	37.56	100.00	137.56	
	3% net selling price to 10/31/20 2% thereafter	1/14/20	793610 885566 885567	6/27/22 4/21/25 4/21/25	6,891.67	100.00	6,991.67	
Acid	5% net selling price	1/9/20	1217862	2/27/34		100.00	100.00	Cancelled Sept. 15, 1921.
	5% net selling price	1/9/20	1255739 1255740	2/5/35 2/5/35		100.00	100.00	Cancelled Sept. 15, 1921.
	5% net selling price	1/9/20	1150152	8/17/32		100.00	100.00	Cancelled Sept. 15, 1921.
	Carried Forward				$39,823.72	$4,066.67	$43,890.39	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate
"A" 47	The Newport Co. & The Newport Chemical Works, Inc., Milwaukee, Wis.	Anthracene Dyes	5% net selling price
"A" 48	The Newport Co. & The Newport Chemical Works, Inc., Milwaukee, Wis.	Intermediate Anthraquinone	5% net selling price
"A" 49	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Vat-Anthraquinon-Aldehyde	5% net selling price
"A" 50	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Vat-Anthraquinon-Acridones	5% net selling price
"A" 51	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Anthraquinon Dyes (Miscellaneous)	5% net selling price
"A" 52	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Azo Acid Dye	5% net selling price
"A" 53	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Azo Chrome	5% net selling price
"A" 54	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Non-Vat Azo Cotton	5% net selling price
"A" 55	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Azo Intermediates	5% net selling price
"A" 56	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Vat Dyes from Dibenzanthrone	5% net selling price
"A" 57	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Catalizers for production of Organic Compounds	5% net selling price
"A" 58	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Extracts	5% net selling price
"A" 59	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Ice Color—Non-Vat	5% net selling price
"A" 60	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene	5% net selling price
"A" 61	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Phenylcinchoninic Acid Derivatives	2½% net selling price
"A" 62	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Pyrazalone	5% net selling price
"A" 63	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Quinoline	5% net selling price

Income on Licenses (Cont'd)

...uct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		(Brought Forward)			$39,823.72	$4,066.67	$43,890.39	
	5% net selling price	1/9/20	1216134	2/13/34		100.00	100.00	Cancelled 9/15/21
...ne	5% net selling price	1/9/20	1119546	12/1/31		100.00	100.00	Cancelled 9/15/21
			1238932	9/4/34				
...le	5% net selling price	1/9/20	1162496	11/30/32		100.00	100.00	Cancelled 9/15/21
			1285727	11/26/35				
...es	5% net selling price	1/9/20	1207981	12/12/33		100.00	100.00	Cancelled 9/15/21
			1207982	12/12/33				
...ellaneous)	5% net selling price	1/9/20	1131516	3/9/32		100.00	100.00	Cancelled 9/15/21
			1139540	5/18/32				
			1138670	5/11/32				
			1196127	8/29/33				
			1266896	5/21/35				
			1285726	11/26/35				
			1280648	10/8/35				
	5% net selling price	1/9/20	1123430	1/5/32		100.00	100.00	Cancelled 9/15/21
			1154826	9/28/32				
			1188421	6/27/33				
			1206232	11/28/33				
			1213075	1/16/34				
	5% net selling price	1/9/20	1155765	10/5/32		100.00	100.00	Cancelled 9/15/21
			1219954	3/20/34				
			1264604	4/30/35				
	5% net selling price	1/9/20	1113468	10/13/31		100.00	100.00	Cancelled 9/15/21
			1121026	12/15/31				
			1122564	12/29/31				
			1126656	1/26/32				
			1173077	2/22/33				
			1180985	4/25/33				
			1209154	12/19/33				
			1319852	10/28/36				
	5% net selling price	1/9/20	1188544	6/27/33		100.00	100.00	Cancelled 9/15/21
			1188545	6/27/33				
			1193566	8/8/33				
			1219166	3/13/34				
			1124776	1/12/32				
			1125311	1/19/32				
			1128369	2/16/32				
			1128370	2/16/32				
...hrone	5% net selling price	1/9/20	1169404	1/25/33		100.00	100.00	Cancelled 9/15/21
			1201968	10/17/33				
			1202260	10/24/33				
			1207762	12/12/33				
...of Organic Compounds	5% net selling price	1/9/20	1201850	10/17/33		100.00	100.00	Cancelled 9/15/21
			1207802	12/12/33				
			1239867	9/11/34				
	5% net selling price	1/9/20	1175091	3/14/33		100.00	100.00	Cancelled 9/15/21
			1175490	3/14/33				
	5% net selling price	1/9/20	1145072	7/6/32		100.00	100.00	Cancelled 9/15/21
			1193829	8/8/33				
			1197633	9/12/33				
	5% net selling price	1/9/20	1145934	7/13/32		100.00	100.00	Cancelled 9/15/21
			1150863	8/24/32				
...rivatives	2½% net selling price	1/9/20	1181485	5/2/33		100.00	100.00	Cancelled 9/15/21
			1075171	10/7/30				
			1197462	9/5/33				
			1086881	2/10/31				
			1045759	11/26/29				
	5% net selling price	1/9/20	1149231	8/10/32		100.00	100.00	Cancelled 9/15/21
			1160471	11/16/32				
			1166346	12/28/32				
			1172061	2/15/33				
			1183831	5/16/33				
	5% net selling price	1/9/20	1197632	9/12/33		100.00	100.00	Cancelled 9/15/21

Income on Licenses

License Number	Name and Address	Product	Royalty Rate
"A" 64	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Sulphur-Non-Vat Dyes	5% net selling price
"A" 65	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Vat-Sulfur	5% net selling price
"A" 66	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Union Azo Dyes	5% net selling price
"A" 67	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Drugs—Pharmaceutical—Urea	5% net selling price
"C" 68	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Procaine	5% gross sales
"A" 69	Lawrence Color & Chemical Wks., Lawrence, Mass.	Cinchophen	2½% net selling price
"A" 70	Rohm & Haas, Philadelphia, Pa.	Tanning Material	3% net selling price
"A" 71	Ultro Chemical Co., Inc., 41 Union Square, N. Y. C.	Color Lake	3½% net selling price
"C" 72	Carrie Gyroscopic Corp., 62 West 14th St., N. Y. C.	Gyroscopic Compasses	5% net selling price
"A" 73	Rosenthal Laboratories, Camden, N. J.	X Ray Tube	10% net selling price
"A" 74	The United States Finishing Co., 320 Broadway, N. Y. C.	Aldehyde Sulfoxylates	3% net selling price to 10/31/20 2% thereafter
"A" 75	G. Siegle Corp. of America, 80 5th Ave., N. Y. C.	Red Blue Lake	2% net selling price
"C" 76	United States Procaine Co., 2923 Atlantic Av., Bklyn, N. Y.	Procaine	5% gross selling price
"A" 77	The Dow Chemical Co., Midland, Michigan	Procaine	5% gross selling price
"A" 78	The Dow Chemical Co., Midland, Michigan	Magnesium Alloy	1½¢ per lb.
"A" 79	Emil Roetheli, Hawthorne, N. J.	Aldehyde Sulfoxylates	3% net selling price to 10/31/20 2% thereafter
"A" 80	Robert Gilchrist & Co., 82 Beaver St., N. Y. C.	Red Color Lake	3% net selling price to 5/11/21
"A" 81	Robert Gilchrist & Co., 82 Beaver St., N. Y. C.	Red Sulphur Dye & Thio-Indoxyl Derivative	3% net selling price to 5/11/21 4% thereafter
"A" 82	Angier Mechanical Laboratories, its subsidiaries and affiliated Companies, Framingham, Mass.	Reinforced Paper	1¼% net selling price
"D" 83	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Trademark—Ichthalbin	1% net selling price
"D" 84	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Trademark—Diuretin	1% net selling price
"D" 85	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Trademark—Euresol	1% net selling price

Income on Licenses (Cont'd)

Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
	(Brought Forward)			$39,823.72	$5,766.67	$45,590.39	
5% net selling price	1/9/20	1128371	2/16/32		100.00	100.00	Cancelled Sept. 15/21
		1165531	12/28/32				
		1199697	9/26/33				
		1200055	10/3/33				
		1251368	12/25/34				
5% net selling price	1/9/20	1126475	1/26/32		100.00	100.00	Cancelled Sept. 15/21
		1129574	2/23/32				
		1129575	2/23/32				
		1141148	6/1/32				
		1209580	12/19/33				
		1243171	10/16/34				
5% net selling price	1/9/20	1150825	8/17/32		100.00	100.00	Cancelled Sept. 15/21
5% net selling price	1/9/20	1173550	2/28/33		100.00	100.00	Cancelled Sept. 15/21
		1274503	8/6/35				
		1292019	1/21/36				
5% gross sales	12/20/19	812554	2/13/23	72.02	100.00	172.02	
2½% net selling price	1/6/20	1045759	11/26/29		100.00	100.00	Cancelled as per memo. 1/9/22
		1075171	10/7/30				
		1086881	2/10/31				
		1197462	9/5/33				
		1181485	5/2/33				
3% net selling price	1/14/20	1191480	7/18/33	609.89	100.00	709.89	Cancelled June 4/21
		1216612	2/20/34				
		1237405	8/21/34				
		1278229	9/10/35				
		1336759	4/13/37				
3½% net selling price	1/23/20	1232551	7/10/34	770.63	100.00	870.63	
		1232552	7/10/34				
5% net selling price	1/14/20	841612	1/15/24		100.00	100.00	
		877034	1/21/25				
		1019582	3/5/29				
		1180365	4/25/33				
		1180815	4/25/33				
		973611	10/25/27				
		1186339	6/6/33				
		1186686	6/13/33				
		1231933	7/3/34				
		1228061	5/29/34				
		794654	7/11/22				
		1173241	3/1/33				
10% net selling price	1/30/20	1122011	12/22/31		100.00	100.00	
		1218423	3/6/34				
3% net selling price to 10/31/20	1/30/20	793610	6/27/22	3,442.95	100.00	3,542.95	
2% thereafter		885566	4/21/25				
		885567	4/21/25				
2% net selling price	1/26/20	757109	4/12/21	722.54	100.00	822.54	Expired July 12/21
5% gross selling price	1/27/20	812554	2/13/23	311.06	100.00	411.06	
5% gross selling price	2/5/20	812554	2/13/23	186.50	100.00	286.50	
1½¢ per lb.	1/30/20	965485	7/26/27	348.25	100.00	448.25	
		982022	1/17/28				
3% net selling price to 10/31/20	1/12/20	793610	6/27/22	37.86	100.00	137.86	Cancelled July 27/21
2% thereafter		885566	4/21/25				
		885567	4/21/25				
3% net selling price to 5/11/21	2/11/20	878964	2/11/25		100.00	100.00	Cancelled—Bankrupt
3% net selling price to 5/11/21	2/11/20	819348	5/1/23		100.00	100.00	Cancelled—Bankrupt
4% thereafter		850827	4/16/24				
1¼% net selling price .	12/22/19	1169895	2/1/33	633.28	66.67	699.95	Cancelled Sept. 30/22
		1197315	9/5/33				
		1362066	12/14/37				
1% net selling price	2/6/20	T. M. 31114		91.98	100.00	191.98	
1% net selling price	2/6/20	T. M. 55759		1,084.30	100.00	1,184.30	
1% net selling prjce	2/6/20	T. M. 88894		461.62	100.00	561.62	

xyl Derivative

License Number	Name and Address	Product	Royalty Rate	Dat Lic
				(Brough
"C" 86	The Stearns-Roger Mfg. Co., Denver, Colorado	Drying Apparatus	$37.50 for every Cubic-Meter-Contents of Drum—less 25% for commissions	12/1
"A" 87	William Melville, St. Marys, Pa.	Tanning Material	5% of net selling price	9/12
"A" 88	Electrosynth Chemical Co., Inc., 980 East 35th St., Bklyn, N. Y.	Phenylcinchoninic Acid	2½% net selling price	1/3/
"C" 89	V & L Chemical Co., Inc., 319 Palmetto St., Bklyn, N. Y.	Procaine	5% net selling price	2/27
"A" 90	Keystone Roofing Manufacturing Co., York, Pa.	Reinforced Paper	1¼% net selling price	3/2/
"D" 91	Merck & Co., 45 Park Pl., N. Y. C.	Trademark—Antithyroidin Moebius	1% net selling price	3/2/
"C" 92	Merck & Co., 45 Park Pl., N. Y. C.	Product—Diplosal —Fibrolysin —Iodipin —Bromipin —Optochin	10% net selling price	3/31
		Trademark—Diplosal —Iodipin —Bromipin —Fibrolysin —Optochin	1% net selling price	
"A" 93	Rohm & Haas Co., Philadelphia, Pa.	Stable Dry Hydrosulphite	3% net selling price to 10/31/20 2% thereafter	3/3/2
"A" 94	Rohm & Haas Co., Philadelphia, Pa.	Aldehyde Sulfoxylates	3% net selling price to 10/31/20 2% thereafter	3/2/2
"A" 95	Butterworth-Judson Corp., 30 Church St., N. Y. C.	Salicine Black	2¢ per pound if sold to 3/31/20 2% net selling price thereafter	3/10/
"A" 96	The Hydrosulphite Co., Inc., East Greenwich, Rhode Island	Aldehyde Sulfoxylates	3% net selling price to 10/31/20 2% thereafter	3/17/
"A" 97	Burdick Cabinet Co., Milton, Wisconsin	Therapeutic Apparatus	5% net selling price	3/17/
"A" 98	Butterworth-Judson Corp., 30 Church St., N. Y. C.	Nitro-Ortho-Oxy-Azo Color & process of making same	1% net selling price to 3/17/21 2% thereafter	3/17/
"A" 99	Merrimac Chemical Co. (Its subsidiary & affiliated companies), 148 State St., Boston, Mass.	Synthetic Camphor	5% net selling price	3/18/
"A" 100	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Insipid Sandalwood Oil Preparations (Santyl)	1% net selling price	3/31/
"A" 101	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Alpha-Halogen-Isovaleryl-Urea (Bromural)	1% net selling price	3/31/
"D" 102	E. Bilhuber, Inc., 25 West Broadway, N. Y. C.	Trademark—Santyl	1% net selling price	3/31/
"D" 103	E. Bilhuber, Inc.	Trademark—Bromural	1% net selling price	3/31/

Carried

Income on Licenses (Cont'd)

duct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
	(Brought Forward)				$48,596.60	$7,933.34	$56,529.94	
	$37.50 for every Cubic-Meter-Contents of Drum—less 25% for commissions	12/1/19	1078125	11/11/30	1,524.38		1,524.38	
	5% of net selling price	9/12/19	1232620	7/10/34				License never executed
			1237405	8/21/34				
d	2½% net selling price	1/3/20	1045759	11/26/29				License never executed
			1075171	10/7/30				
			1086881	2/10/31				
			1197462	9/5/33				
	5% net selling price	2/27/20	812554	2/13/23		100.00	100.00	Cancelled
	1¾% net selling price	3/2/20	1169895	2/1/33		66.67	66.67	Income Mansfield Patent not included
			1197315	9/5/33				
			1362066	12/14/37				
din Moebius	1% net selling price	3/2/20	T. M. 54995		44.30	100.00	144.30	
	10% net selling price	3/31/20	922995	5/25/26	49.36		49.36	Product imported, this is trademark only.
			868204	10/15/24				
			774224	11/8/21				
			774224	11/8/21				
			1062203	5/20/30				
	1% net selling price		T. M. 85549					
			T. M. 32003					
			T. M. 32002					
			T. M. 49160					
			T. M. 99822					
hite	3% net selling price to 10/31/20	3/3/20	795755	7/25/22		100.00	100.00	
	2% thereafter		711377	10/14/19				
			861014	7/23/24				
	3% net selling price to 10/31/20	3/2/20	793610	6/27/22		100.00	100.00	
	2% thereafter		885566	4/21/25				
			885567	4/21/25				
	2¢ per pound if sold to 3/31/20	3/10/20	807422	12/12/22	777.27	100.00	877.27	Expired Dec. 12, 1922.
	2% net selling price thereafter		770177	9/13/21				
			778476	12/27/21				
	3% net selling price to 10/31/20	3/17/20	793610	6/27/22	8.25	100.00	108.25	
	2% thereafter		885566	4/21/25				
			885567	4/21/25				
	5% net selling price	3/17/20	834209	10/23/23		100.00	100.00	Cancelled June 21, 1921.
Color & process of making same	1% net selling price to 3/17/21	3/17/20	958912	5/24/27		100.00	100.00	
	2% thereafter							
	5% net selling price	3/18/20	725890	4/21/20		100.00	100.00	
			770940	9/27/21				
			790601	5/23/22				
			801483	10/10/22				
			801485	10/10/22				
			802793	10/24/22				
			903047	11/3/25				
			907941	12/29/25				
			989651	4/18/28				
			994437	6/6/28				
			1030334	6/25/29				
			1066758	7/8/30				
			1105378	7/28/31				
l Preparations (Santyl)	1% net selling price	3/31/20	862858	8/6/24	59.32	100.00	159.32	
yl-Urea (Bromural)	1% net selling price	3/31/20	914518	3/9/26	209.26	100.00	309.26	
	1% net selling price	3/31/20	T. M. 61255		59.32		59.32	
	1% net selling price	3/31/20	T. M. 61165		209.26	100.00	309.26	
		Carried Forward—			$51,537.32	$9,200.01	$60,737.33	

Income on Licenses (Cont'd)

nse nber	Name and Address	Product	Royalty Rate	Date of License
				Brought For
104	Bausch Machine Tool Co., 40 State St., Boston, Mass.	Duralumin	1¢ per pound—Minimum yearly royalty $5000.00—Yearly minimum reduced to $2500.00—April 2, 1922	4/2/20
105	The Ault & Wiborg Co., Cincinnati, Ohio	Salicine Black	2% net selling price	3/31/20
106	Monsanto Chemical Works, St. Louis, Mo.	Producing Aromatic Amins & Catalysts therefor	1½¢ per pound	4/1/20
107	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Salicine Black	2% net selling price	3/31/20
108	Central Dyestuff & Chemical Co., Newark, N. J.	Salicine Black	2% net selling price	4/23/20
109	The Abbott Laboratories, Chicago, Illinois	Acriflavine & Proflavine	5% net selling price	4/27/20
110	The Barrett Co., 40 Rector St., N. Y. C.	Tanning Material	3% net selling price	5/3/20
111	The Sherwin-Williams Co., 115 Broadway, N. Y. C.	Red Azo Dye	2% net selling price to 4/29/21 3% thereafter	4/29/20
112	The Sherwin-Williams Co., 115 Broadway, N. Y. C.	Red Blue Lake	2% net selling price	4/29/20
113	The Sherwin-Williams Co., 115 Broadway, N. Y. C.	Salicine Black	2% net selling price	4/29/20
114	The Sherwin-Williams Co., 115 Broadway, N. Y. C.	Red Color Lake	3% net selling price to 7/29/21 4% thereafter	4/29/20
115	The Roessler & Hasslacher Chemical Co., 709-711 6th Ave., N. Y. C.	Gas Retorts, and Method of making Gas therewith	$400.00 per unit or 10% of the usage charge to customers—for 4 or less units—$1000.00 per unit for 5 or more units	5/11/20
116	The Ault & Wiborg Co., Cincinnati, Ohio	Lake Red C	2% net selling price	5/17/20
117	The Sherwin-Williams Co., 115 Broadway, N. Y. C.	Lake Red C	2% net selling price	5/26/20
118	John G. Marshall, 1752 Atlantic Ave., Bklyn, N. Y.	Flash Light Powder	8% net selling price	5/21/20
119	National Aniline & Chemical Co. Inc., 40 Rector St., N. Y. C.	Anthrarufin and Chrysazin	½% net selling price	6/16/20
120	The Abbott Laboratories, 4753 Ravenswood Av., Chicago, Ill.	Trademark—Anesthesin	1% net selling price	6/2/20 T. M.
121	Kilby Manufacturing Co., Cleveland, Ohio.	Gas Washers	5% net selling price	6/3/20
122	Diarsenol Laboratories, Inc., 902-4 Ellicott Sq., Buffalo, N. Y.	Sodium Arsphenamine	5% net selling price	6/2/20
123	Merck & Co., 45 Park Pl., N. Y. C.	Quinine Diethylbarbiturate	5% net selling price	6/4/20
124	McKesson & Robbins, 91 Fulton St., N. Y. C.	Euquinine (Trademark)	1% net selling price	6/11/20 T. M.
125	Upjohn Co., Kalamazoo, Michigan.	Trademark—Digipuratum	1% net selling price	6/16/20 T. M.
126	Harold M. Bennett	Lenses & Optical	10% net selling price	6/16/20

Carried Forward

Income on Licenses (Cont'd)

ıct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
	Brought Forward				$51,537.32	$9,200.01	$60,737.33	
	1¢ per pound—Minimum yearly royalty $5000.00—Yearly minimum reduced to $2500.00—April 2, 1922	4/2/20	868383 995113 1083903 1130785 1261987	10/15/24 6/13/28 1/6/31 3/9/32 4/9/35	5,553.54	100.00	5,653.54	1/2 of Royalties to American Duralumin Co. These royalties represent net royalties to the Foundation.
	2% net selling price	3/31/20	770177 807422 778476	9/13/21 12/12/22 12/27/21	59.81	100.00	159.81	Cancelled Oct. 21, 1921
s & Catalysts therefor	1½¢ per pound	4/1/20	1207802	12/12/33		100.00	100.00	
	2% net selling price	3/31/20	770177 807422 778476	9/13/21 12/12/22 12/27/21	6,473.47	100.00	6,573.47	Cancelled Sept. 15, 1921.
	2% net selling price	4/23/20	770177 807422 778476	9/13/21 12/12/22 12/27/21	1,927.84	100.00	2,027.84	Cancelled Nov. 1, 1921
	5% net selling price	4/27/20	1005176	10/10/28	740.77	100.00	840.77	
	3% net selling price	5/3/20	1191480 1216612 1237405 1278229 1336759	7/18/33 2/20/34 8/21/34 9/10/35 4/13/37	142.45	100.00	242.45	Cancelled April 28, 1921.
	2% net selling price to 4/29/21 3% thereafter	4/29/20	752562	2/16/21	316.36	100.00	416.36	Expired February 16, 1921.
	2% net selling price	4/29/20	757109	4/12/21	46.45	100.00	146.45	Expired April 12, 1921.
	2% net selling price	4/29/20	770177 807422 778476	9/13/21 12/12/22 12/27/21	165.15	100.00	265.15	Expired Dec. 27, 1921—They operated under Patent 778476.
	3% net selling price to 7/29/21 4% thereafter	4/29/20	878964	2/11/25				License never executed.
of making Gas therewith	$400.00 per unit or 10% of the usage charge to customers—for 4 or less units—$1000.00 per unit for 5 or more units	5/11/20	904043 1228879 822246 928494 801268 819596 1208134 1281775 1181431 815438 926702 955970 782129 899503	11/17/25 6/5/34 6/5/21 7/20/26 10/10/22 5/1/23 12/12/33 10/15/35 5/2/33 3/20/23 6/29/26 4/26/27 2/7/22 9/29/25		100.00	100.00	
	2% net selling price	5/17/20	733280	7/7/20	157.78	100.00	257.78	Expired July 7, 1920
	2% net selling price	5/26/20	733280	7/7/20		100.00	100.00	Expired July 7, 1920
	8% net selling price	5/21/20	918818	4/20/26		100.00	100.00	Cancelled May 20, 1921.
	½% net selling price	6/16/20	778670	12/27/21	7,641.95	100.00	7,741.95	Expired Dec. 27, 1921.
	1% net selling price	6/2/20	T. M. 55744		176.23	100.00	276.23	
	5% net selling price	6/3/20	794201 807695 895313	7/11/22 12/19/22 8/4/25	210.50	100.00	310.50	Cancelled Mar. 22, 1922.
	5% net selling price	6/2/20	1059983 1078135	4/29/30 11/11/30	1,541.31	200.00	1,741.31	
	5% net selling price	6/4/20	1185637	6/6/33	1.86	100.00	101.86	
	1% net selling price	6/11/20	T. M. 54088		15.12	100.00	115.12	
	1% net selling price	6/16/20	T. M. 73012		18.95	100.00	118.95	
	10% net selling price	6/16/20						Pending
	Carried Forward—				$76,726.86	$11,400.01	$88,126.87	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate	Date of License
				(Brought F
D" 127	Toch Brothers, 320 Fifth Ave., N. Y. C.	Trademark—Metol	2½% net selling price	5/14/2
A" 128	G. Siegle Corp. of America, Rosebank, Staten Island, N. Y.	Color Lake	3½% net selling price	7/2/20
A" 129	Rhode Island Cardboard Co., Pawtucket, R. I.	Paper-Machines		
A" 130	Magnetic Mfg. Co., Milwaukee, Wis.	Magnetic Separator	5% net selling price	7/7/20
D" 131	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Planar	1% net selling price	7/15/2
D" 132	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Protar	1% net selling price	7/15/2
D" 133	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Amatar	1% net selling price	7/15/2
D" 134	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Tessar	1% net selling price	7/15/2
D" 135	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Katral	1% net selling price	7/15/2
D" 136	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Triotar	1% net selling price	7/15/2
A" 137	Bausch & Lomb Optical Co., Rochester, N. Y.			
A" 138	Bausch & Lomb Optical Co., Rochester, N. Y.	Photographic Objective	2% net selling price	7/15/20
A" 139	Bausch & Lomb Optical Co., Rochester, N. Y.	Photographic Lens to be placed before the objective	3% net selling price	7/15/20
A" 140	Bausch & Lomb Optical Co., Rochester, N. Y.	Ramsden Ocular	3% net selling price	7/15/20
A" 141	Bausch & Lomb Optical Co., Rochester, N. Y.	Projection System	3% net selling price	7/15/20
A" 142	Bausch & Lomb Optical Co., Rochester, N. Y.	Magnifier	3% net selling price	7/15/20
A" 143	Bausch & Lomb Optical Co., Rochester, N. Y.	Microscopic Condenser	3% net selling price	7/15/20
A" 144	Bausch & Lomb Optical Co., Rochester, N. Y.	Theatre Glass—Galilean System	3% net selling price	7/15/20
A" 145	The Pierce Co., Rochester, N. Y.			
A" 146	Atmospheric Nitrogen Corp., Syracuse, N. Y.	Ammonia (N.H3 content) products and by-products therefrom	2% net selling price $2500.00 in lieu of royalties from 1 year from date of completion of plant	7/24/20

(Carried Fo

Income on Licenses (Cont'd)

	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		(Brought Forward)			$76,726.86	$11,400.01	$88,126.87	
	2½% net selling price	5/14/20	T. M. 57145		31.48	100.00	131.48	
	3½% net selling price	7/2/20	1232551	7/10/34	788.30	100.00	888.30	
			1232552	7/10/34				
								License never executed.
	5% net selling price	7/7/20	1037563	9/3/29	96.35	100.00	196.35	
	1% net selling price	7/15/20	T. M. 68570			100.00	100.00	
	1% net selling price	7/15/20	T. M. 68571		1,410.87	100.00	1,510.87	
	1% net selling price	7/15/20	T. M. 85306			100.00	100.00	
	1% net selling price	7/15/20	T. M. 68572		3,304.13	100.00	3,404.13	
	1% net selling price	7/15/20	T. M. 93581		6.40	100.00	106.40	
	1% net selling price	7/15/20	T. M. 94409			100.00	100.00	
								License never executed.
	2% net selling price	7/15/20	895045	8/4/25	1,034.02	100.00	1,134.02	
			1025766	5/7/29				
			1073789	9/23/30				
placed before the objective	3% net selling price	7/15/20	1169731	1/25/33		100.00	100.00	
	3% net selling price	7/15/20	873870	12/17/24		100.00	100.00	
			873871	12/17/24				
			1159233	11/2/32				
	3% net selling price	7/15/20	873896	12/17/24		100.00	100.00	
			934579	9/21/26				
			988720	4/4/28				
	3% net selling price	7/15/20	940895	11/23/26		100.00	100.00	
	3% net selling price	7/15/20	1016369	2/6/29		100.00	100.00	
			1157257	10/19/32				
ystem	3% net selling price	7/15/20	962920	6/28/27		100.00	100.00	
								License never executed
) products and by-products	2% net selling price	7/24/20	739920	9/29/20	2,500.00	100.00	2,600.00	
	$2500.00 in lieu of royalties from 1 year from date of completion of plant		754474	3/15/21				
			758775	5/3/21				
			792379	6/13/22				
			797961	8/22/22				
			797962	8/22/22				
			804021	11/7/22				
			814917	3/13/23				
			850392	4/16/24				
			884919	4/14/25				
			884920	4/14/25				
			895313	8/4/25				
			911801	2/9/26				
			918589	4/20/26				
			922003	5/18/26				
			923012	5/25/26				
			941768	11/30/26				
			957843	5/10/27				
			964415	7/12/27				
			965482	7/26/27				
			970883	9/20/27				
			971149	9/27/27				
			971206	9/27/27				
			971501	9/27/27				
			981727	1/17/28				
			984605	2/21/28				
		(Carried Forward)			$85,898.41	$13,100.01	$98,998.42	

License Number	Name and Address
146	Atmospheric Nitrogen Corp. (continued)

Income on Licenses (Con

Product	Royalty Rate	Date of License Brought

Income on Licenses (Cont'd)

luct	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
		Brought Forward			$85,898.41	$13,100.01	$98,998.42	
			984925	2/21/28				
			990191	4/18/28				
			993144	5/23/28				
			994095	5/30/28				
			999025	7/25/28				
			1000732	8/15/28				
			1006206	10/17/28				
			1008927	11/14/28				
			1011014	12/5/28				
			1015566	1/23/29				
			1015800	1/30/29				
			1018990	2/27/29				
			1022351	4/2/29				
			1028366	6/4/29				
			1029528	6/11/29				
			1035873	8/20/29				
			1039851	10/1/29				
			1039852	10/1/29				
			1040218	10/1/29				
			1043798	11/12/29				
			1053951	2/18/30				
			1053952	2/18/30				
			1054901	3/4/30				
			1055331	3/11/30				
			1058653	4/8/30				
			1059817	4/22/30				
			1059818	4/22/20				
			1061725	5/13/30				
			1068966	7/29/30				
			1068967	7/29/30				
			1068968	7/29/30				
			1068969	7/29/30				
			1070138	8/12/30				
			1073823	9/23/30				
			1073870	9/23/30				
			1075085	10/7/30				
			1077034	10/28/30				
			1078423	11/11/30				
			1078686	11/18/30				
			1079705	11/25/30				
			1083585	1/6/31				
			1083703	1/6/31				
			1089185	3/3/31				
			1090874	3/24/31				
			1094194	4/12/31				
			1096392	5/12/31				
			1096393	5/12/31				
			1098139	5/26/31				
			1101424	6/23/31				
			1102716	7/7/31				
			1107926	8/18/31				
			1113096	10/6/31				
			1113097	10/6/31				
			1115249	10/27/31				
			1115776	11/3/31				
			1118595	11/24/31				
			1118628	11/24/31				
			1119534	12/1/31				
			1126371	1/26/32				
			1128804	2/16/32				
			1128843	2/16/32				
			1129559	2/23/32				
			1133087	3/23/32				
			1134416	4/6/32				
			1144730	6/29/32				

Income on Licenses (Cont'

License Number	Name and Address	Product	Royalty Rate	Date Lic
				Brought
146	Atmospheric Nitrogen Corp. (continued)			
"D" 147	John G. Marshall, 1752 Atlantic Av., Bklyn, N. Y.	Trademark—Rodinal	1% net selling price	7/29/21
"A" 148	The Sidio Co. of America, Inc., 37 Murray St., N. Y. C.	Quartz Bodies	2% net selling price	7/30/21
"A" 149	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Benzanthrone	2% net selling price to 3/31/21 5% thereafter	8/23/21
"A" 150	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Green B	2% of the net selling price to 3/31/21 5% thereafter	8/23/21
"A" 151	The Newport Co. & The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Dark Blue BO	2% net selling price to 3/31/21 5% thereafter	8/23/21
"D" 152	Bausch & Lomb Optical Co., Rochester, N. Y.	Trademark—Distar	1% net selling price	9/7/21
"A" 153	Veritas Chemical Corp., P. O. Box 722, Albany, N. Y.	Stable Dry Hydrosulphite	3% net selling price to 6/30/21 2% thereafter	9/21/21
"A" 154	Sun Chemical & Color Co., Harrison, N. J.	Color Lake	3½% net selling price	9/27/21
"A" 155	Ultro Chemical Co., 41 Union Sq., N. Y. C.	Nitramines	4% net selling price	10/4/21
"A" 156	Dr. I. S. Hirsch, 11 E. 68th St., N. Y. C.	XRay Accessary		
"A" 157	Kuttroff Piackhardt & Co., Inc., 128 Duane St., N. Y. C.	Color Lakes	3½% net selling price	10/8/21

Carried For

Income on Licenses (Cont'd)

luct	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
		Brought Forward			$85,898.41	$13,100.01	$98,998.42	
			1152930	9/7/32				
			1157253	10/19/32				
			1158167	10/26/32				
			1159865	11/9/32				
			1169817	2/1/33				
			1172863	2/22/33				
			1172908	2/22/33				
			1172925	2/22/33				
			1173532	3/1/33				
			1175693	3/14/33				
			1178440	4/4/33				
			1188191	6/20/33				
			1200805	10/10/33				
			1201607	10/17/33				
			1202995	10/31/33				
			1207706	12/12/33				
			1207707	12/12/33				
			1207708	12/12/33				
			1211181	1/2/34				
			1211394	1/9/34				
			1212504	1/16/34				
			1215957	2/13/34				
			1216059	2/13/34				
			1225755	5/15/34				
			1243382	10/16/34				
			1244580	10/30/34				
			1256875	2/19/35				
			1261900	4/19/35				
			1278580	9/10/35				
			1286650	12/3/35				
			1301151	4/22/36				
			1322291	11/18/36				
			1330772	2/10/37				
	1% net selling price	7/29/20				100.00	100.00	
	2% net selling price	7/3020	1031900	7/9/29				
			1051035	1/21/30				
			1107386	8/18/31				
			1107387	8/18/31				
			1051036	1/21/30				
			989671	4/18/28				
			1086716	7/29/30				
	2% net selling price to 3/31/21 5% thereafter	8/23/20	787859	4/8/22		100.00	100.00	Cancelled Sept. 15/21
	2% of the net selling price to 3/31/21 5% thereafter	8/23/20	796393	8/1/22	235.93	100.00	335.93	Cancelled Sept. 15/21
BO	2% net selling price to 3/31/21 5% thereafter	8/23/20	818992	4/24/23	1,031.15	100.00	1,131.15	Cancelled Sept. 15/21
	1% net selling price	9/7/20				100.00	100.00	
	3% net selling price to 6/30/21	9/21/20	795755	7/25/22		100.00	100.00	
	2% thereafter		861014	7/23/24				
	3½% net selling price	9/27/20	1232551	7/10/34	13.15	100.00	113.15	Cancelled July 19/21
			1232552	7/10/34				
	4% net selling price	10/4/20	763756	6/28/21	192.77	100.00	292.77	Expired June 28/21 License never executed
	3½% net selling price	10/8/20	1232551	7/10/34	17,392.39	100.00	17,492.39	
			1232552	7/10/34				
		Carried Forward			$104,763.80	$14,000.01	$118,763.81	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate
"A" 158	Ultro Chemical Corp., 41 Union Square, N. Y. C.	Red for Lake D	2% net selling price
"A" 159	Geo. W. Brady & Co., 809 So. Western Ave., Chicago, Ill.	X Ray Accessary	5% net selling price
"A" 160	The Carborundum Co., Niagara Falls, N. Y.	Zirconia Refractory	2% net selling price
"A" 161	Van Dyk & Co., 4-6 Platt St., N. Y. C.	Acriflavine & Proflavine	5% net selling price
"A" 162	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Paper Blue	5% net selling price
"A" 163	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Violet R	5% net selling price
"A" 164	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Violet RR	5% net selling price
"A" 165	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Dark Blue BR	5% net selling price
"A" 166	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Green B	5% net selling price
"A" 167	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Yellow G Paste	5% net selling price
"A" 168	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Ponsol Blue G Paste	5% net selling price
"A" 169	Dow Chemical Co.	Penta or Hexa Brominated Indigo	5% net selling price
"A" 170	Parke Davis & Co., Detroit, Michigan	Agar-Agar-Cascara	5% net selling price
"A" 171	Campbell Electric Co., Lynn, Massachusetts	X Ray Tube	
"A" 172	Roentgen Appliance Co., 693 Mission St., San Francisco, Cal.	X Ray Tube	5% net selling price
"A" 173	Victor X Ray Tube Co., 236 So. Robey St., Chicago, Ill.	X Ray Tube	5% net selling price
"A" 174	A. B. Ansbacher & Co., 527 5th Ave., N. Y. C.	Red Blue Lake	
"A" 175	H. A. Metz Laboratories, 122 Hudson St., N. Y. C.	Arseno-Metal Preparations and process of making same.	5% net selling price
"A" 176	Ultro Chemical Co., Inc., 41 Union Square, N. Y. C.	Pigment Scarlet G	5% net selling price
"A" 177	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Color Lakes Containing Phospho Tungstic Acid	5% net selling price
"A" 178	Newport Chemical Wks., Inc., Milwaukee, Wisconsin.		
"A" 179	Rohm & Haas, 40 North Front St., Phila., Pa.	Leukotrope	5% net selling price
"A" 180	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Green B	
"A" 181	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Red G	
"A" 182	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Bordeaux B	
"A" 183	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Violet R	
"A" 184	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Benzanthrone	
"A" 185	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Golden Orange C	
"A" 186	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Hydron Blues	

(Carried

Income on Licenses (Cont'd)

uct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		Brought Forward			$104,763.80	$14,000.01	$118,763.81	
	2% net selling price	10/8/20	878964	2/11/25	688.36	100.00	788.36	
	5% net selling price	10/19/20	1164987	12/21/32	402.31	100.00	502.31	
	2% net selling price	10/25/20	1159264	11/2/32				License never executed.
	5% net selling price	10/26/20	1005176	10/10/28	19.67	100.00	119.67	
	5% net selling price	9/1/20	1055701	3/11/30				Cancelled
	5% net selling price	9/1/20	787859	4/18/22				Cancelled
			818336	4/17/23				
			906367	12/8/25				
	5% net selling price	9/1/20	818336	4/17/23	4,823.25		4,823.25	Cancelled
			906367	12/8/25				
			1003268	9/12/28				
	5% net selling price	9/1/20	787659	4/18/22	789.84		789.84	Cancelled
			818992	4/24/23				
	5% net selling price	9/1/20	787859	4/18/22	2,975.49		2,975.49	Cancelled
			796393	8/1/22				
			818992	4/24/23				
			876679	1/14/25				
	5% net selling price	9/1/20	739145	9/15/20	8,354.86		8,354.86	Cancelled
			1063173	5/27/30				
			1104943	7/28/31				
	5% net selling price	9/1/20	739579	9/22/20	4,614.93		4,614.93	Cancelled
			753659	3/1/21				
			844914	2/19/24				
			1063173	5/27/30				
			1104943	7/28/31				
ed Indigo	5% net selling price	11/19/20	1043468	11/5/29	6,171.34	100.00	6,271.34	Cancelled
			1070541	8/19/30				
			1061781	5/13/30				
	5% net selling price	1/6/21	896807	8/25/25	1,383.71	100.00	1,483.71	
			943163	12/14/26				
								License Never Executed
	5% net selling price	12/28/20						License Never Executed
	5% net selling price	1/17/21	1164987	12/21/32	3,230.40	100.00	3,330.40	
ns and process of making	5% net selling price	3/11/21	1091881	3/31/31	4,958.60	100.00	5,058.60	License never executed.
			1127603	2/9/32				
	5% net selling price	1/26/21	837128	11/27/23	30.25	100.00	130.25	
Phospho Tungstic Acid	5% net selling price	2/25/21	1232551	7/10/34	927.52	66.66	994.18	Income Linz Patent not included.
			1232552	7/10/34				
			1378882	5/24/38				
					384.60		384.60	These royalties earned under license #269—credited to this number temporarily while licenses were being revised.
	5% net selling price	3/11/21	1036241	8/20/29	941.19	100.00	1,041.19	
			1106970	8/11/31				
								License never executed
								License never executed
								License never executed
								License never executed
								License never executed
nge C								License never executed
								License never executed
		(Carried Forward)			$145,460.12	$14,966.67	$160,426.79	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate	Da... Li...
				Brou...
"A" 187	American Vat Color Co., 3223 Southwestern Blvd., Chicago, Ill.	Indanthrene Dark Blue BO	5% net selling price	3/...
"A" 188	American Cotton Oil Co., 65 Broadway, N. Y. C.	Nickel Catalyst	.0239¢ per pound	4/...
"A" 189	The Dermatological Research Labs., 1720 Lombard St., Phila., Pa.	Sodium Arsphenamine	5% net selling price	4/...
"A" 190	The Engeln Electric Co., 4601 Euclid Av., Cleveland, O.	X Ray Accessary	5% net selling price	4/...
"A" 191	Tower Mfg. Co., 552 Pearl St., N. Y. C.	Hydron Blues	5% net selling price	4/...
"A" 192	Tower Manufacturing Co., Inc., 552 Pearl St., N. Y. C.	Hydron Violet	5% net selling price	4/...
"A" 193	Tower Manufacturing Co., Inc., 552 Pearl St., N. Y. C.	Hydron Yellow	5% net selling price	4/...
"A" 194	Rochester Germicide Co., 16-24 Dowling Pl., Rochester, N. Y.	The use of Para-dichloro-benzene as an insecticide		
"A" 195	H. Kohnstamm & Co., 83 Park Pl., N. Y. C.	Color Lakes derived from Red for Lake D	2% of net selling price	4/...
"A" 196	G. Siegle Corp. of America, 80 5th Ave., N. Y. C.	Color Lakes derived from Red for Lake D	2% net selling price	4/...
"A" 197	Atlantic Chemical Works, Ltd. (its subsidiary & affiliated Co's), Bayway, Elizabeth, N. J.	Synthetic Tanning Materials derived from Naphthaline	3% net selling price	4/...
"A" 198	Paul Uhlich & Co., Inc., 11 Cliff St., N. Y. C.	Color Lakes Derived from Red for Lake D		
"A" 199	Hooker Electrochemical Co., Inc., 25 Pine St., N. Y. C.	The use of Para-dichlorobenzene as an insecticide	5% net selling price	4/...
"A" 200	Brooklyn Color Works, Inc., Stewart Ave. & Cherry St., Brooklyn, N. Y.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price	4/...
"A" 201	Brooklyn Color Works, Inc., Stewart Ave. & Cherry St., Bklyn, N. Y.	Color Lakes Derived from Red for Lake D		
"A" 202	The Barrett Co., 17 Battery Pl., N. Y. C.	Synthetic Tanning Materials produced from Phenolic Bodies	3% of net selling price	4/...
"A" 203	The Barrett Co., 17 Battery Pl., N. Y. C.	Synthetic Tanning Materials of the Napthalene Group	3% net selling price	4/...
"A" 204	E. C. Klipstein & Sons Co., 654 Greenwich St., N. Y. C.	The use of Para-dichlorobenzene as an insecticide	5% of the net selling price	4/...
"A" 205	J. M. Huber, 65 West Houston St., N. Y. C.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price	4/...
"A" 206	The Ault & Wiborg Co., Cincinnati, Ohio	Color Lakes containing Phospho-Tungstic Acid	5% net selling price	3/...
"A" 207	Albert Kennedy Child, 611 W. 156th St., N. Y. C.	Pivotal Jaw Device	3% net selling price	5/...
"A" 208	Gaskill Chemical Corp., 157 Spencer St., Bklyn, N. Y.	Fur and Hair Dye and application of same	5% net selling price	5/...
"D" 209	The Norma Co. of America, Anable Av., Long Island City, N. Y.	Trademark—Minimeter	$100.00 payment in full of license fee and royalty	5/...
"A" 210	The Norma Co. of America, Anable Av., Long Island City, N. Y.	Micrometer Gage	5% of net selling price $100.—minimum royalty each year	5/...
"A" 211	The Organic Laboratories Co., 279 Hosea Av., Cincinnati, Ohio	The use of Para-dichlorobenzene as an insecticide	5% net selling price	5/...
"A" 212	Merck & Co., 45 Park Pl., N. Y. C.	A double salt of Morphin and Narcotin	5% net selling price	5/...
"A" 213	Hanovia Chemical & Mfg. Co., Chestnut St. & New Jersey R. R. Ave., Newark, N. J.	Therapeutic Apparatus	$5.00 per lamp	6/...

Carried ...

Income on Licenses (Cont'd)

Product	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
		Brought Forward			$145,460.12	$14,966.67	$160,426.79	
Dark Blue BO	5% net selling price	3/28/21	818992	4/24/23	42.83	100.00	142.83	
st	.0239¢ per pound	4/1/21	1314642	9/2/36		100.00	100.00	
henamine	5% net selling price	4/1/21	1059983	4/29/30		300.00	300.00	
			1078135	11/11/30				
			1081592	12/16/30				
ary	5% net selling price	4/8/21	1164987	12/21/32	708.75	100.00	808.75	
	5% net selling price	4/8/21	919572	4/27/26		100.00	100.00	
			931598	8/17/26				
			956346	4/26/27				
			966092	8/2/27				
			1141148	6/1/32				
	5% net selling price	4/8/21	1129574	2/23/32		100.00	100.00	
	5% net selling price	4/8/21	1055287	3/4/30		100.00	100.00	
			1196127	8/29/33				
ra-dichloro-benzene as an insecticide								License never executed
erived from Red for Lake D	2% of net selling price	4/1/21	878964	2/11/25	160.95	100.00	260.95	
erived from Red for Lake D	2% net selling price	4/1/21	878964	2/11/25	718.52	100.00	818.52	
ing Materials derived from Naphthaline	3% net selling price	4/1/21	1191480	7/18/33	538.62	100.00	638.62	
			1216612	2/20/34				
			1278229	9/10/35				
			1336759	4/13/37				
Derived from Red for Lake D								License never executed
ra-dichlorobenzene as an insecticide	5% net selling price	4/1/21	1097406	5/19/31	3,455.53	100.00	3,555.53	
ntaining Phospho-Tungstic Acid	5% net selling price	4/1/21	1232551	7/10/34	260.84	66.67	327.51	
			1232552	7/10/34				
erived from Red for Lake D								License never executed
ing Materials produced from Phenolic	3% of net selling price	4/1/21	1237405	8/21/34	146.97		146.97	
			1232620	7/10/34				
			1254364	1/22/35				
			1133108	3/23/32				
ng Materials of the Napthalene Group	3% net selling price	4/1/21	1191480	7/18/33	.15	100.00	100.15	
			1216612	2/20/34				
			1278229	9/10/35				
			1336759	4/13/37				
a-dichlorobenzene as an insecticide	5% of the net selling price	4/27/21	1097406	5/19/31	403.32	100.00	503.32	
ntaining Phospho-Tungstic Acid	5% net selling price	4/1/21	1232551	7/10/34	423.46	66.67	490.13	
			1232552	7/10/34				
			1378882	5/24/38				
ntaining Phospho-Tungstic Acid	5% net selling price	3/30/21	1232551	7/10/34	190.06	66.66	256.72	
			1232552	7/10/34				
			1378882	5/24/38				
rice	3% net selling price	5/9/21	1059545	4/22/30				
Dye and application of same	5% net selling price	5/4/21	992947	5/23/28	822.03		822.03	
			1105554	7/28/31				
imeter	$100.00 payment in full of license fee and royalty	5/11/21						
	5% of net selling price	5/9/21	1048073	12/24/29	100.00	100.00	200.00	
	$100.—minimum royalty each year		1049860	1/7/30				
a-dichlorobenzene as an insecticide	5% net selling price	5/23/21	1097406	5/19/31	.18	100.00	100.18	
Morphin and Narcotin	5% net selling price	5/9/21	1061139	5/6/30		100.00	100.00	
paratus	$5.00 per lamp	6/1/21	834209	10/23/23	3,015.00	100.00	3,115.00	
		Carried Forward			$156,347.33	$17,166.67	$173,514.00	

Income on Licenses (Cont'd)

ber nse	Name and Address	Product	Royalty Rate	Date of License
				Brought Forward
214	Sepoy Dye Products Corp., 77 Pine St., N. Y. C.	Immedial Yellow GG		
215	Katode XRay Tube Co., 33 West 46th St., N. Y. C.	Tungsten Filaments	5% net selling price	6/1/21
216	Rohm & Haas, 40 North Front St., Philadelphia, Pa.	Synthetic Tanning Materials of the Naphthalene Group	3% net selling price	6/1/21
217	Rohm & Haas, 40 North Front St., Philadelphia, Pa.	Synthetic Tanning Materials produced from Phenolic Bodies	3% net selling price	6/1/21
218	Rohm & Haas, 40 North Front St., Phila., Pa.	Synthetic Tanning Materials derived from Phenol Sulfuric Acid and Grape Sugar	3% net selling price	6/1/21
219	Rohm & Haas, 40 North Front St., Phila., Pa.	Synthetic Tanning Materials derived from Carbazol	3% net selling price	6/1/21
220	Rohm & Haas, 40 North Front St., Phila., Pa.	Synthetic Tanning Materials derived from Anthracene Derivatives	3% net selling price	6/1/21
221	Maple Chemical Co., Inc., 122 Maple Avenue, Staten Island, N. Y.	Fur & Hair Dye and application of same	5% net selling price	6/3/21
222	Yocum Laboratories, 168 Coit St., Newark, N. J.	Synthetic Tanning Materials of the Naphthalene Group	3% net selling price	6/6/21
223	Yocum Laboratories, 168 Coit St., Newark, N. J.	Synthetic Tanning Materials produced from Phenolic Bodies	3% net selling price	6/6/21
224	Yocum Laboratories, 168 Coit St., Newark, N. J.	Synthetic Tanning Materials derived from Phenol Sulfuric Acid and Grape Sugar	3% net selling price	6/6/21
225	Yocum Laboratories, 168 Coit St., Newark, N. J.	Synthetic Tanning Materials derived from Carbazole	3% net selling price	6/6/21
226	Yocum Laboratories, 168 Coit St., Newark, N. J.	Synthetic Tanning Materials derived from Anthracene derivatives	3% net selling price	6/6/21
227	California Ink Co., Inc., West Berkely, California	Color Lakes Containing Phospho-Tungstic Acid	5% net selling price	6/6/21
228	E. R. Squibb & Sons, 80 Beekman St., N. Y. C.	Process for producing Aldehyde Sulfoxylates	2% net selling price	6/8/21
229	Powers-Weightman-Rosengarten Co., Philadelphia, Pa.	Arsphenamine—Salt thereof, container for same, and the injection Preparation	5% net selling price	6/8/21
230	Powers-Weightman-Rosengarten Co., Philadelphia, Pa.	Neo-Arsphenamine and container for same	5% net selling price	6/8/21
231	Powers-Weightman-Rosengarten Co., Philadelphia, Pa.	Metallic Salts of Arsphenamine and container for same	5% net selling price	6/8/21
232	Powers-Weightman-Rosengarten Co., Philadelphia, Pa.	Alkali Compounds of Dioxy-diamino-arsenobenzene and container for same	5% net selling price	6/8/21
233	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Chrome Black	2% net selling price	6/10/21 7/1/21
234	Dow Chemical Co., Midland, Michigan	Penta Brom Indigo	3% net selling price	7/1/21
235	Dow Chemical Co., Midland, Michigan	Hexa Brom Indigo	3% net selling price	6/16/21
236	Tower Manufacturing Co., 326 Broadway, N. Y. C.	Fur and Hair Dye and application of same	5% net selling price	
237	Burdick Cabinet Co., Milton, Wisconsin	Therapeutic Apparatus	$5.00 per lamp	6/21/21
238	Jaenecke-Ault Co.	Color Lakes derived from Red	2% net selling price	6/25/21
				Carried Forward

Income on Licenses (Cont'd)

Product	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
GG		Brought Forward—			$156,347.33	$17,166.67	$173,514.00	
s	5% net selling price	6/1/21	1256929	2/19/35		100.00	100.00	License never executed
			1256930	2/19/35				
Materials of the Naphthalene Group	3% net selling price	6/1/21	1191480	7/18/33				
			1216612	2/20/34				
			1278229	9/10/35				
			1336759	4/13/37				
Materials produced from Phenolic	3% net selling price	6/1/21	1237405	8/21/34	100.06	100.00	200.06	
			1232620	7/10/34				
			1133108	3/23/32				
			1254364	1/22/35				
Materials derived from Phenol Sul- Grape Sugar	3% net selling price	6/1/21	1107107	8/11/31		100.00	100.00	
Materials derived from Carbazol	3% net selling price	6/1/21	1289280	12/31/35		100.00	100.00	
Materials derived from Anthracene	3% net selling price	6/1/21	1281494	10/15/35		100.00	100.00	
nd application of same	5% net selling price	6/3/21	992947	5/23/28	188.43	100.00	288.43	
			1105554	7/28/31				
Materials of the Naphthalene Group	3% net selling price	6/6/21	1191480	7/18/33	643.35		643.35	
			1216612	2/20/34				
			1278229	9/10/35				
			1336759	4/13/37				
Materials produced from Phenolic	3% net selling price	6/6/21	1237405	8/21/34		100.00	100.00	
			1232620	7/10/34				
			1133108	3/23/32				
			1254364	1/22/35				
Materials derived from Phenol nd Grape Sugar	3% net selling price	6/6/21	1107107	8/11/31		100.00	100.00	
Materials derived from Carbazole	3% net selling price	6/6/21	1289280	12/31/35		100.00	100.00	
Materials derived from Anthracene	3% net selling price	6/6/21	1281494	10/15/35		100.00	100.00	
ining Phospl ungstic Acid	5% net selling price	6/6/21	1232551	7/10/34	102.94	66.67	169.61	
			1232552	7/10/34				
			1378882	5/24/38				
ng Aldehyde Sulfoxylates	2% net selling price	6/8/21	885567	4/21/25		100.00	100.00	
thereof, container for same, and reparation	5% net selling price	6/8/21	986148	5/7/28		400.00	400.00	
			1116398	11/10/31				
			1081592	12/16/30				
			1081897	12/16/30				
and container for same	5% net selling price	6/8/21	Re. 13848	2/18/30	1,223.93	100.00	1,323.93	
			1081592	12/16/30				
rsphenamine and container for same	5% net selling price	6/8/21	1127603	2/9/32		200.00	200.00	
			1091881	3/31/31				
			1081592	12/16/30				
of Dioxy-diamino-arsenobenzene and me	5% net selling price	6/8/21	1059983	4/29/30		200.00	200.00	
			1078135	11/11/30				
			1081592	12/16/30				
	2% net selling price	6/10/21	770177	9/13/21				Expired September 13, 1921
		7/1/21	1070541	8/19/30	1,725.63	100.00	1,825.63	
	3% net selling price	7/1/21	1061781	5/13/30	89.34		89.34	
	3% net selling price	6/16/21	992947	5/23/28	595.15	100.00	695.15	
and application of same	5% net selling price		1105554	7/28/31				
tus	$5.00 per lamp	6/21/21	834209	10/23/23	2,335.00		2,335.00	
l from Red	2% net selling price	6/25/21	878964	2/11/25		100.00	100.00	
		Carried Forward—			$163,351.16	$19,533.34	$182,884.50	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate
"A" 239	International X Ray Corp., 326 Broadway, N. Y. C.	X Ray Accessary	
"A" 240	H. Kohnstamm & Co., 83 Park Pl., N. Y. C.	Color Lakes Containing Phospho-Tungstic Acid	5% net selling price
"A" 241	Empire State Chemical Lab., Inc., 217 Broadway, N. Y. C.	Arsphenamine—Salt thereof, container for same and the injection preparation	5% net selling price
"A" 242	Jaenecke-Ault Co., Newark, N. J.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price
"A" 243	The Senelith Ink Co., Inc., 32 Greene St., N. Y. C.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price
"A" 244	Sigmund Ullman Co., Inc., 146th St. & Park Av., N. Y. C.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price
"A" 245	Sun Chemical & Color Co., Harrison, N. J.	Color Lakes containing Phospho-Tungstic Acid	5% net selling price
"A" 246	Barnsdall Refining Co., 41 E. 42nd St., N. Y. C.	Conversion of Heavy Hydro-Carbons into light Hydro-carbons	1¢ per gallon—minimum yearly royalty $1000.00
"A" 247	Hawthorne Chemical Co., 1 Washington Avenue, Hawthorne, N. J.	Aldehyde Sulfoxylates	2% net selling price
"A" 248	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Hydron Blue	
"A" 249	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Sulphur Yellow GG	5% net selling price
"A" 250	Wappler Electric Co., Inc., 162 Harris Av., L. I. City, N. Y.	X Ray Accessary	5% net selling price
"A" 251	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Synthetic Tanning Materials of the Napthalene Group	3% net selling price
"A" 252	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Snythetic Tanning Materials produced from Phenolic Bodies	3% net selling price
"A" 253	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Synthetic Tanning Materials derived from Phenol Sulfuric Acid and Grape Sugar	3% net selling price
"A" 254	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Synthetic Tanning Material derived from Carbazole	3% net selling price
"A" 255	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Synthetic Tanning Materials derived from Anthracene Derivatives	3% net selling price
"A" 256	Dermatological Research Labs., 1720 Lombard Street, Philadelphia, Pa.	Arsphenamine—Salt thereof, container for same and the injection preparation	5% net selling price
"A" 257	Dermatological Research Labs., 1720 Lombard Street, Phila., Pa.	Neo-Arsphenamine and container for same	5% net selling price
"A" 258	Dermatological Research Labs., 1720 Lombard Street, Phila., Pa.	Metallic salts of Arsphenamine and container for same	5% net selling price
"A" 259	The Wm. Meyer Co., 1644 No. Girard St., Chicago, Ill.	X Ray Accessary	5% net selling price
"A" 260	H. K. Mulford Co., Philadelphia, Pa.	Arsphenamine—Salt thereof, container for same and injection preparation	
"A" 261	H. K. Mulford Co., Philadelphia, Pa.	Neo-Arsphenamine and container for same.	
"A" 262	H. K. Mulford Co., Philadelphia, Pa.	Metallic Salts of Arsphenamine and container for same	
"A" 263	H. K. Mulford Co., Philadelphia, Pa.	Alkali Compounds of Dioxy-diamino-arseno-benzine and container for same	

Carried

Income on Licenses (Cont'd)

Product	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		Brought Forward—			$163,351.16	$19,533.34	$182,884.50	
			1164987	12/21/32				License never executed
g Phospho-Tungstic Acid	5% net selling price	6/30/21	1232551	7/10/34	75.02	66.67	141.69	
			1232552	7/10/34				
			1378882	5/24/38				
hereof, container for same and paration	5% net selling price	7/8/21	986148	3/7/28		400.00	400.00	Bankrupt,—so considered cancelled. This product never approved by Public Health Commission
			1081592	12/16/30				
			1081897	12/16/30				
			1116398	11/10/31				
g Phospho-Tungstic Acid	5% net selling price	7/8/21	1232551	7/10/34		66.66	66.66	
			1232552	7/10/34				
			1378882	5/24/38				
g Phospho-Tungstic Acid	5% net selling price							License never executed
g Phospho-Tungstic Acid	5% net selling price	7/12/21	1232551	7/10/34	55.50	66.67	122.17	
			1232552	7/10/34				
			1378882	5/24/38				
g Phospho-Tungstic Acid	5% net selling price	7/19/21	1232551	7/10/34	111.42		111.42	
			1232552	7/10/34				
			1378882	5/24/38				
Hydro-Carbons into light Hydro-	1¢ per gallon—minimum yearly royalty $1000.00	7/21/21	1205578	11/21/33	1,444.44	100.00	1,544.44	
	2% net selling price	7/27/21	793610	6/27/22				
			885566	4/21/25				
			885567	4/21/25				
								License never executed
	5% net selling price	7/8/21	892455	7/7/25	5,361.92	100.00	5,461.92	
	5% net selling price	8/1/21	1164987	12/21/32	12.50	100.00	112.50	
terials of the Napthalene Group	3% net selling price	7/12/21	1191480	7/18/33	929.78		929.78	
			1216612	2/20/34				
			1278229	9/10/35				
			1336759	4/13/37				
terials produced from Phenolic	3% net selling price	7/12/21	1232620	7/10/34	164.57		164.57	
			1237405	8/21/34				
			1254364	7/22/35				
			1133108	3/23/32				
terials derived from Phenol Grape Sugar	3% net selling price	7/12/21	1107107	8/11/31				
terial derived from Carbazole	3% net selling price	7/12/21	1289280	12/31/35				
terials derived from Anthracene	3% net selling price	7/12/21	1281494	10/15/35				
hereof, container for same and paration	5% net selling price	6/1/21	986148	3/7/28	4,088.46	300.00	4,388.46	
			1116398	11/10/31				
			1081592	12/16/30				
			1081897	12/16/30				
container for same	5% net selling price	6/1/21	Re. 13848	2/18/30	26,978.14	100.00	27,078.14	
			1081592	12/16/30				
namine and container for same	5% net selling price	6/1/21	1081592	12/16/30		200.00	200.00	
			1091881	3/31/31				
			1127603	2/9/32				
	5% net selling price	8/10/21	1164987	12/21/32	700.01	100.00	800.01	
hereof, container for same and								License never executed
container for same.								License never executed
namine and container for same								License never executed
Dioxy-diamino-arseno-benzine								License never executed
ine								
		Carried Forward—			$203,272.92	$21,133.34	$224,406.26	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate
"B" 264	Claude Violi, 6 Temple St., Springfield, Mass.	X Ray Accessary	5% net selling price
"B" 265	Ultro Chemical Co., 41 Union Sq., N. Y. C.	Permanent Red	5% net selling price
"B" 266	The American Solder & Flux Co., 2910 No. 16th St., Phila., Pa.	Solder	3% net selling price
"D" 267	The American Solder & Flux Co., 2910 No. 16th St., Phila., Pa.	Trademark—Tinol	
"B" 268	Hammer Laboratories Co., Landsdowne, Pa.	Diacetyl-Amino-azo-toluene	
"B" 269	The Newport Chemical Wks., Inc., Milwaukee, Wisc.	Process for producing Amino-anthraquinones and derivatives thereof.	2½% net selling price
"B" 270	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Brown B	5% net selling price
"B" 271	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Blue BO, BGO, BOS and Intermediate Product	5% net selling price
"B" 272	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Olive Green Vat Dye	5% net selling price
"B" 273	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Olive Green Vat Dye	5% net selling price
"B" 274	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Green B or Indanthrene Black B and Intermediate Product Benzanthrone	5% net selling price
"B" 275	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Red BX	5% net selling price
"B" 276	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Anthraflavones	5% net selling price
"B" 277	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Dianthraquinonyl (Intermediate)	5% net selling price
"B" 278	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Golden Orange	5% net selling price
"B" 279	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Black Azo Dyestuffs	5% net selling price
"B" 280	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Quinoline Yellow	5% net selling price
"B" 281	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Chrome Black	2% net selling price
"B" 282	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Bordeaux Vat Dyes	5% net selling price
"B" 283	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Green Vat Dyes	5% net selling price
"B" 284	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Blue Tetrakisazo Dyes (Cotton Blue)	5% net selling price
"B" 285	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Blue Tetrakisazo Dyes (Cotton Blue)	5% net selling price
"B" 286	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Diazo Cotton Blue	5% net selling price
"B" 287	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Claret-Red Trisazo Dye	5% net selling price
"B" 288	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Yellow Vat Dyes—Hydron Yellow	5% net selling price
"B" 289	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Blue Gray to Green Gray Vat Dyes	5% net selling price
"B" 290	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Red Wool Dyestuff	5% net selling price
"B" 291	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Pastes of Sulfur Dyes	5% net selling price
"B" 292	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Azo Dyes for Cotton & Paper	5% net selling price
"B" 293	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Indanthrene Violet RX	5% net selling price
"B" 294	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Pigment Color and process for producing same from Blue Vat Dyes	5% net selling price
"B" 295	The Newport Chemical Wks., Inc., Milwaukee, Wis.	Green Cotton Dyes	5% net selling price

Income on Licenses (Cont'd)

	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
		Brought Forward			$203,272.92	$21,133.34	$224,406.26	
	5% net selling price	8/22/21	1164987	12/21/32	125.74	100.00	225.74	
	5% net selling price	9/1/21	955068	4/12/27	1,580.73	100.00	1,680.73	
	3% net selling price	9/6/21	736812	8/18/20	61.25		61.25	Expired 8/18/20—Royalties represent past activities. License Never executed.
			T. M. 68910					License Never executed
ino-anthraquinones and de-	2½% net selling price	9/15/21	1063173	5/27/30	10,111.96		10,111.96	
	5% net selling price	9/15/21	876190	1/7/25	387.54		387.54	
GO, BOS and Intermediate	5% net selling price	9/15/21	818992	4/24/23	1,958.48		1,958.48	
			787859	4/18/22				
	5% net selling price	9/15/21	1207762	12/12/33				
	5% net selling price	9/15/21	1093427	4/14/31				
danthrene Black B and In- zanthrone	5% net selling price	9/15/21	796393	8/1/22	648.96		648.96	
			787859	4/18/22				
	5% net selling price	9/15/21	1011068	12/5/28				
	5% net selling price	9/15/21	837840	12/4/23				
diate)	5% net selling price	9/15/21	828778	8/14/23				
	5% net selling price	9/15/21	856811	6/11/24				
	5% net selling price	9/15/21	1206232	11/28/33				
	5% net selling price	9/15/21	1197632	9/12/33				
	2% net selling price	9/15/21	807422	12/12/22	1,109.46		1,109.46	
	5% net selling price	9/15/21	1202260	10/24/33				
	5% net selling price	9/15/21	1201968	10/17/33				
tton Blue)	5% net selling price	9/15/21	1180985	4/25/33				
ton Blue)	5% net selling price	9/15/21	1319852	10/28/36				
	5% net selling price	9/15/21	1113468	10/13/31				
	5% net selling price	9/15/21	1150825	8/17/32				
Yellow	5% net selling price	9/15/21	1196127	8/29/33				
Vat Dyes	5% net selling price	9/15/21	1169404	1/25/33				
	5% net selling price	9/15/21	1123430	1/5/32				
	5% net selling price	9/15/21	1200055	10/3/33				
per	5% net selling price	9/15/21	1126656	1/26/32				
	5% net selling price	9/15/21	906367	12/8/25				
			787859	4/18/22				
for producing same from	5% net selling price	9/15/21	1150863	8/24/32				
	5% net selling price	9/15/21	1183831	5/16/33				
		Carried Forward			$219,257.04	$21,333.34	$240,590.38	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate	Date of License
				Brought Fo
"B" 296	Semet-Solvay Co., Syracuse, N. Y.	The Use of Para-dichlorobenzene as an Insecticide	5% net selling price	9/19/21
"B" 297	The Adams X Ray Corp., Maple & Rivard Sts., Detroit, Michigan	X Ray Accessary	5% net selling price	9/23/21
"B" 298	The Abbott Laboratories, Inc., 4753 Ravenswood Av., Chicago, Ill.	Cinchophen	2½% net selling price	11/23/21
"B" 299	The Abbott Laboratories, Inc., 4753 Ravenswood Ave., Chicago, Ill.	Procaine	5% net selling price	11/23/21
"B" 300	Novocol Chemical Mfg. Co., Inc., 2923 Atlantic Ave., Bklyn., N. Y.	Alpha-Halogen-Isoraleryl-Urea (Bromural)	1% net selling price	10/1/21
"D" 301	Novocol Chemical Mfg. Co., Inc., 2923 Atlantic Avenue, Bklyn., N. Y.	Trademark—Bromural	1% net selling price	10/1/21
"B" 302	American Vat Color Co., 3223 So. Western Blvd., Chicago, Ill.	Indanthrene Olive G	5% net selling price	10/1/21
"B" 303	Case Woodland Drug Co., 40th St. & Woodland Ave., Cleveland, Ohio.	Calcium Salt of Acetyl-Salicylic Acid	3% net selling price to 10/10/22 5% net selling price thereafter	10/10/2
"B" 304	Case Woodland Drug. Co., 40th St. & Woodland Ave., Cleveland, Ohio.	Stable compounds containing Hydrogen Peroxide	3% net selling price to 10/10/22 5% net selling price thereafter	10/10/21
"B" 305	Fine Colors Co., 21-29 McBride Ave., Paterson, N. J.	Color Lakes Containing Phospho-Tungstic Acid		
"D" 306	The American Lysoform Co., 408 W. 13th St., N. Y. C.	Trademark—Lysoform	1% net selling price	10/17/21
"B" 307	Metals Coating Co. of American, 495-7 No. 3rd St., Phila., Pa.	Method of Producing Metallic Coatings	5% net selling price	10/17/21
"B" 308	Waite & Bartlett Mfg. Co., 53 Jackson Av., L. I. City, N. Y.	X Ray Accessary	5% net selling price	10/20/21
"C" 309	Pacific Flush Tank Co., 4241 E. Ravenswood Ave., Chicago, Ill.	Imhoff Tanks	60% of fee	8/23/21
"D" 310	The American Solder & Flux Co., 2910 No. 16th St., Phila., Pa.	Trademark—Tinol	1% net selling price	11/1/21
"B" 311	Central Dyestuff & Chemical Co., Newark, N. J.	Salicine Black	2% net selling price	11/1/21
"B" 312	Empire State Chemical Labs., Inc., 53 Hope St., Brooklyn, N. Y.	Neo-Arsphenamine and container for same	5% net selling price	11/7/21
"B" 313	The A. Wilhelm Co., Reading, Pa.	Color Lakes Containing Phospho-Tungstic Acid	5% net selling price	11/10/21
"B" 314	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Hydron Blue R	5% net selling price	11/16/21
"D" 315	Merck & Co., 45 Park Pl., N. Y. C.	Trademark—Stypticin	1% net selling price	11/21/21
"D" 316	Merck & Co., 45 Park Pl., N. Y. C.	Trademark—Dionin	1% net selling price	11/21/21
"B" 317	The Abbott Laboratories, Inc., 4753 Ravenswood Ave., Chicago, Ill.	Neo-Cinchophen	2½% net selling price	11/23/21
"D" 318	Carbic Color & Chemical Co., 451 Washington St., N. Y. C.	Trademark—Validol	1¢ per gram	11/15/21
"B" 319	H. S. B. W.-Cochrane Corp., 17th St. & Allegheny Ave., Philadelphia, Pa.	Precipitated Zeolite	1¢ per pound	11/29/21
"B" 320	H. A. Metz, 122 Hudson St., N. Y. C.	Intermediate for the production of Synthetic Epinephrine	2% net selling price	12/1/21
"B" 321	John A. Larkin, 52 Vanderbilt Ave., N. Y. C.	Alkyl Ethers of Cellulose	2% net selling price	12/1/21
"B" 322	John A. Larkin, 52 Vanderbilt Ave., N. Y. C.	Alkyl Ethers of Cellulose	1% net selling price	12/1/21
"B" 323	John A. Larkin, 52 Vanderbilt Ave., N. Y. C.	Alkyl Ethers of Cellulose	1% net selling price	12/1/21
"B" 324	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Arylamids of Beta-Oxy-Naphtolic Acid, derivatives of same & their application		

(Carried Fo

Income on Licenses (Cont'd)

duct	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		Brought Forward			$219,257.04	$21,333.34	$240,590.38	
obenzene as an Insecticide	5% net selling price	9/19/21	1097406	5/19/31	618.12	100.00	718.12	
	5% net selling price	9/23/21	1164987	12/21/32		100.00	100.00	
	2½% net selling price	11/23/21	1075171	10/7/30	868.15	100.00	968.15	
	5% net selling price	11/23/21	812554	2/13/23	425.09	100.00	525.09	
-Urea (Bromural)	1% net selling price	10/1/21	914518	3/9/26	8.68	100.00	108.68	
	1% net selling price	10/1/21	T. M. 61165		8.68	100.00	108.68	
	5% net selling price	10/1/21	922282	5/18/26		100.00	100.00	
alicylic Acid	3% net selling price to 10/10/22	10/10/21	1058904	4/15/30		100.00	100.00	
	5% net selling price thereafter							
ning Hydrogen Peroxide	3% net selling price to 10/10/22	10/10/21	1035756	8/13/29		100.00	100.00	
	5% net selling price thereafter							
Phospho-Tungstic Acid			1232551	7/10/34				License never executed
			1232552	7/10/34				
			1378882	5/24/38				
	1% net selling price	10/17/21	T. M. 35979			100.00	100.00	
etallic Coatings	5% net selling price	10/17/21	App. 251576					License out for signature
	5% net selling price	10/20/21	1164987	12/21/32		100.00	100.00	
	60% of fee	8/23/21	924664	6/15/26	10,584.66		10,584.66	
			978889	12/10/27				
			1056548	3/18/30				
			1057154	3/25/30				
			1053396	2/18/30				
	1% net selling price	11/1/21	T. M. 63910		96.86	100.00	196.86	
	2% net selling price	11/1/21	778476	12/27/21	106.85		106.85	License Expired 12/27/21
ontainer for same	5% net selling price	11/7/21	Re.-13848	2/18/30		100.00	100.00	Bankrupt
			1081592	12/16/30				
Phospho-Tungstic Acid	5% net selling price	11/10/21	1232551	12/16/30		66.67	66.67	Income Linz Product not included.
			1232552	7/10/34				
			1378882	5/24/38				
	5% net selling price	11/16/21	956348	4/26/27	62.69	100.00	162.69	
	1% net selling price	11/21/21	T. M. 27388		158.15	100.00	258.15	
	1% net selling price	11/21/21	T. M. 32737		214.59	100.00	314.59	
	2½% net selling price	11/23/21	1045759	11/26/29	18.19	100.00	118.19	
	1¢ per gram	11/15/21	T. M. 29457	5/1/22	645.65	100.00	745.65	Expired May 1, 1922
			T. M. 54087					
	1¢ per pound	11/29/21	1161200	11/23/32	25.00	100.00	125.00	
		12/1/21	815653	3/20/23	807.80	100.00	907.80	
oduction of Synthetic Epine-	2% net selling price							
	2% net selling price	12/1/21	1217028	2/20/34				Cancelled Feb. 27, 1922
	1% net selling price	12/1/21	1217027	2/20/34				Cancelled Feb. 27, 1922
	1% net selling price	12/1/21	1188376	6/20/33				Cancelled Feb. 27, 1922
Naphtolic Acid, derivatives of								License never executed
ation								
		(Carried Forward)			$233,906.20	$23,400.01	$257,306.21	

Income on Licenses (Cont'd)

ense mber	Name and Address	Product	Royalty Rate	Date of License
				Brought For
325	P. R. Mallory & Co., Inc., Portchester, N. Y.	Tungsten Filaments	5% net selling price	12/12/21
326	The Novocof Chemical Mfg. Co., Inc., 2923 Atlantic Av., Bklyn, N. Y.	Trademark—Validol	1% net selling price	12/13/21
327	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Process for producing Amino Anthraquinones and derivatives thereof.	2½% net selling price	9/1/20
328	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Intermediate Product (Benzanthrone) and derivatives thereof	5% net selling price	9/1/20
329	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Indanthrene Violet R	5% net selling price	9/1/20
330	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Indanthrene Violet 2R	5% net selling price	9/1/20
331	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Salicine Black U	2% net selling price	12/9/19
332	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Arylamids of Beta-Oxy-Naphthoic Acid, derivatives of same and their application	5% net selling price	12/19/21
333	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Indanthrene Paper Blues	5% net selling price	9/1/20
334	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Sulphogene Bordeaux B & G	2½% net selling price	11/1/19
335	The Mason Drug & Chemical Co., Hancock, Maryland	The Use of Paradichlorobenzene as an Insecticide		
336	The Colloid Chemical Corp., 49 Charlton St., N. Y. C.	Indanthrene R and Violet R.	5% net selling price	12/27/21
337	The Colloid Chemical Corp., 49 Charlton St., N. Y. C.	Indanthrene Black B & Dark Blue BO	5% net selling price	12/27/21
338	Sinclair & Valentine Co., 11-21 St. Claire Pl., N. Y. C.	Color Lakes Containing Phospho-Tungstic Acid	5% net selling price	12/27/21
339	The B. F. Sturtevant Co., Hyde Park, Boston, Mass.	Propeller Blowers	5¢ for each inch of the diameter of the fan squared	1/24/22
340	The Roessler & Hasslacher Chem. Co., 709-717 6th Ave., N. Y. C.	Trademark—Trisalyt	$100.00 per year	2/1/22
341	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Hydron Blue R & F. R.	5% net selling price	2/21/22
342	E. C. Klipstein & Sons Co., 644 Greenwich St., N. Y. C.	Hydron Blue G & Dark Blue G.	5% net selling price	2/21/22
343	American Ethers Corp., 44 Wall St., N. Y. C.	Alkyl Ethers of Cellulose	2% net selling price of Artificial Silk	2/27/22
344	American Ethers Corp., 44 Wall St., N. Y. C.	Alkyl Ethers of Cellulose	1% net selling price	2/27/22
345	American Ethers Corp., 44 Wall St., N. Y. C.	Alkyl Ethers of Cellulose	1% net selling price	2/27/22
346	The Sperry Gyroscope Co., Manhattan Bridge Plaza, Brooklyn, N. Y.	Gyroscopic Compasses	5% net selling price	2/27/22
347	The Sperry Gyroscope Co., Manhattan Bridge Plaza, Bklyn, N. Y.	Multiple Repeater	5% net selling price	2/27/22
348	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Acriflavine & Proflavine	5% net selling price	3/31/22
349	Siemon & Elting, 93 Nassau St., N. Y. C.	Color Lakes Containing Molybdic Acid	5% net selling price	5/1/22
				Carried Forw

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Income on Licenses (Cont'd)

	Royalty Rate	Date of License	Patent Numbers	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
	Brought Forward—				$233,906.20	$23,400.01	$257,306.21	
	5% net selling price	12/12/21	1256929	2/19/35		200.00	200.00	
			1256930	2/19/35				
	1% net selling price	12/13/21	T. M. 29457		9.51	100.00	109.51	
			T. M. 54087					
Anthraquinones and de-	2½% net selling price	9/1/20	1063173	5/27/30	13,301.46	100.00	13,401.46	
anthrone) and derivatives	5% net selling price	9/1/20	787859	4/18/22	3,734.78	300.00	4,034.78	
			796393	8/1/22				
			818992	4/24/23				
	5% net selling price	9/1/20	906367	12/8/25	.03	100.00	100.03	
			787859	4/18/22				
	5% net selling price	9/1/20	906367	12/8/25	7,749.32	100.00	7,849.32	
			787859	4/18/22				
			1003268	9/12/28				
	2% net selling price	12/9/19	807422	12/12/22	2,759.02		2,759.02	
thoic Acid, derivatives of	5% net selling price	12/19/21	1034853	8/6/29	2,504.18	1,000.00	3,504.18	
tion			1042356	10/22/29				
			1122564	12/29/31				
			1127027	2/2/32				
			1206232	11/28/33				
			1101111	6/23/31				
			1121026	12/15/31				
			1099108	6/2/31				
			1193566	8/8/33				
			1169267	1/25/33				
G	5% net selling price	9/1/20	1150863	8/24/32	259.38	100.00	359.38	
ene as an Insecticide	2½% net selling price	11/1/19	818980	4/24/23	8,308.37	100.00	8,408.37	
			1097406	5/19/31				License never executed
	5% net selling price	12/27/21	787859	4/8/22		300.00	300.00	
			906367	12/8/25				
			1003268	9/12/28				
Blue BO	5% net selling price	12/27/21	787859	4/8/22		200.00	200.00	
			796393	8/1/22				
			818992	4/24/25				
opho-Tungstic Acid	5% net selling price	12/27/21	1232551	7/10/34	26.55	200.00	226.55	
			1232552	7/10/34				
			1378882	5/24/38				
	5¢ for each inch of the diameter of the fan squared	1/24/22	1062258	5/20/30		100.00	100.00	
	$100.00 per year	2/1/22	T. M. 81507		500.00		500.00	
	5% net selling price	2/21/22	919572	4/27/26				
			956348	4/26/27		200.00	200.00	
e G.	5% net selling price	2/21/22	966092	8/2/27		100.00	100.00	
	2% net selling price of Artificial Silk	2/27/22	1217028	2/20/34				
	1% net selling price	2/27/22	1217027	2/20/34				
	1% net selling price	2/27/22	1188376	6/20/33				
	5% net selling price	2/27/22	1092816	4/14/31		400.00	400.00	
			1180815	4/25/33				
			1186339	6/6/33				
			1186686	6/13/33				
	5% net selling price	2/27/22	1092816	4/14/31				
	5% net selling price	3/31/22	1005176	10/10/28	298.55	100.00	398.55	
bdic Acid	5% net selling price	5/1/22	1232551	7/10/34	36.00	100.00	136.00	
	Carried Forward—				$273,393.35	$27,200.01	$300,593.36	

DEFENDANT'S EXHIBIT No. 83. 2615

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate
"B" 350	The Grasselli Chemical Company, 117 Hudson St., N. Y. C.	Salicine Black	2% net selling price
"B" 351	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Process of making Arylamids of 2.3. oxy-napthoic acid	5% net selling price
"B" 352	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Condensation products of arylamids of 2.3. oxy-napthoic acid and formaldehyde and azo dyestuffs therefrom	5% net selling price
"B" 353	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Azo dystuffs obtained by combining Diazo compounds of Benzene series with 2.3 oxy-napthoic acid arylamids.	5% net selling price
"B" 354	National Aniline & Chemical Co., 40 Rector St., N. Y. C.	Art of producing colors on cotton and impregnating with 2.3 oxy-napthoic acid arylamids and a non sulphonated dizazo compound.	5% net selling price
"B" 355	Abbott Laboratories, 4753 Ravenswood Av., Chicago, Ill.	Light Filter	2½% net selling price
"B" 356	Rohm & Haas, 40 No. Front St., Phila., Pa.	Monozinc Formaldehyde Sulphoxylate	
B" 357	The Calco Chemical Co., Bound Brook, N. J.	Procaine	
"B" 358	Martin Cantine Co., Saugerties, N. Y.	Process of preparing Printers overlays and Underlays	$500.00 per year
"B" 359	The Koppers Co., Union Arcade Bldg., Pittsburgh, Pa.	Regenerative Coke-Oven	$100.00 per Unit
"B" 360	Sperry Gyroscope Co., Manhattan Bridge Plaza, Brooklyn, N. Y.	Gyroscope Compass	5% net selling price
"B" 361	Riverside & Dan River Cotton Mills, Danville, Va.	Yellow Sulphur Dye	5% net selling price
"B" 362	Jaeger Research Laboratories, Inc., 68-70 Hudson St., Hoboken, N. J.	Tungsten filaments	5% net selling price
"B" 363	E. I. Dupont de Nemours & Co., Inc., Wilmington, Del.	Sulphogene Ochre D	5% net selling price
"B" 364	E. I. Dupont de Nemours & Co., Inc., Wilmington, Del.	Hydron Blue G	5% net selling price
"B" 365	E. I. Dupont de Nemours & Co., Inc., Wilmington, Del.	Sulphogene Brown R	5% net selling price
"B" 366	E. I. Dupont de Nemours & Co., Inc., Wilmington, Del.	Hydron Pink FF	5% net selling price
"B" 367	Liebel-Flarsheim Co., 410 Holmes St., Cincinnati, Ohio.	Busky Diaphragm	5% net selling price

Income on Licenses (Cont'd)

Product	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31, 1922.	Remarks
		Brought Forward			$273,393.35	$27,200.01	$300,593.36	
	2% net selling price	5/1/22	807422	12/12/22	118.35	100.00	218.35	
rylamids of 2.3. oxy-napthoic acid	5% net selling price	5/8/22	1101111	6/23/31	717.00	100.00	817.00	
te of arylamids of 2.3. oxy-napthoic aldehyde and azo dyestuffs there-	5% net selling price	5/8/22	1122564	12/29/31		100.00	100.00	
d by combining Diazo compounds s with 2.3 oxy-napthoic acid aryla-	5% net selling price	5/8/22	1034853	8/6/29		100.00	100.00	
olors on cotton and impregnating pthoic acid arylamids and a non azo compound.	5% net selling price	5/8/22	1099108	6/2/31		100.00	100.00	
yde Sulphoxylate	2½% net selling price	5/15/22	1099710	6/9/31		100.00	100.00	
			812554	2/13/23				Cancelled
Printers overlays and Underlays	$500.00 per year	5/22/22	892166	6/30/25	321.24	100.00	421.34	Out for signature
ven	$100.00 per Unit	6/5/22	1041457	10/15/29		100.00	100.00	
	5% net selling price	6/17/22	841612	1/15/24				
			877034	1/21/25				
			1019582	3/5/29				
			1180365	4/25/33				
			1228061	5/29/34				
			1231933	7/3/34				
	5% net selling price	7/21/22	892455	7/7/25		100.00	100.00	
	5% net selling price	7/24/22	1256929	2/19/35		200.00	200.00	
			1256930	2/19/35				
	5% net selling price	7/31/22	904809	11/24/25	110.85	100.00	210.85	
	5% net selling price	7/31/22	966092	8/2/27		100.00	100.00	
	5% net selling price	7/31/22	1165531	12/28/22		100.00	100.00	
	5% net selling price	7/31/22	1243171	10/16/34		100.00	100.00	
	5% net selling price	7/29/22	1164987	12/31/32		100.00	100.00	
		Carried Forward			$274,660.79	$28,800.01	$303.460.80	

Income on Licenses (Cont'd)

License Number	Name and Address	Product	Royalty Rate	Date License Brought
"B" 368	E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware	Hydroy Orange	5% net selling price	7/31
"B" 369	Rohm & Haas, 40 No. Front St., Phila., Pa.	Monozinc Formaldehyde Sulphoxylate	2% net selling price	8/21
"B" 370	Abbott Laboratories, Inc., Chicago, Ill.	Alkali Compounds of Dioxy-diamino-arsenobenzine & container for same	5% net selling price	8/29
"B" 371	Abbott Laboratories, Inc., Chicago, Ill.	Arsphenamine, Salt thereof, container for same & the injection preparation	5% net selling price	8/29
"B" 372	Abbott Laboratories, Inc., Chicago, Ill.	Metallic Salts of Arsphenamine & container for same	5% net selling price	8/29
"B" 373	Abbott Laboratories, Inc., Chicago, Ill.	Neo-Arsphenamine and container for same	5% net selling price	8/29
"B" 374	Abbott Laboratories, Inc., Chicago, Ill.	Sulpharsphenamine	5% net selling price	8/29
"D" 375	Lysoform Corp., 81 Fulton St., N. Y. C.	Trade Mark "Lysoform"	1% net selling price	11/1
"B" 376	Mallinckrodt Chemical Works, St. Louis, Mo.	Arsphenamine, Salt thereof, container for same and the injection preparation	5% net selling price	11/2
"B" 377	Mallinckrodt Chemical Works, St. Louis, Mo.	Neo-Arsphenamine and container for same	5% net selling price	11/2
"D" 378	Rhodia, Incorporated, 89 Fulton St., N. Y. C.	Trademark "Metol"	1% net selling price	11/2
"B" 379	Heller & Merz, Newark, N. J.	Color Lakes containing Phospho Tungstic Acid	5% net selling price	11/2

Income on Licenses (Cont'd)

	Royalty Rate	Date of License	Patent Number	Expiration Date	Amount of Royalty	License Fee	Total Amount Received to Dec. 31/22	Remarks
		Brought Forward—			$274,660.79	$28,800.01	$303,460.80	
	5% net selling price	7/31/22	1243170	10/16/34				Out for signature
ulphoxylate	2% net selling price	8/21/22	1063004	5/27/30	245.97	100.00	345.97	
cy-diamino-arsenobenzine &	5% net selling price	8/29/22	1059983	4/29/30		300.00	300.00	
			1078135	11/11/30				
			1081592	12/16/30				
, container for same & the	5% net selling price	8/29/22	986148	3/7/28		300.00	300.00	
			1081592	12/16/30				
			1081897	12/16/30				
			1116398	11/10/31				
mine & container for same	5% net selling price	8/29/22	1081592	12/16/30		200.00	200.00	
			1091881	3/31/31				
			1127603	2/9/32				
ntainer for same	5% net selling price	8/29/22	Re. 13848	2/18/30		100.00	100.00	
			1081592	12/16/30				
	5% net selling price	8/29/22	1024993	4/30/29		100.00	100.00	
	1% net selling price	11/1/22	T. M. 35979			100.00	100.00	
f, container for same and	5% net selling price	11/22/22	986148	3/7/28				
on			1116398	11/10/31				
			1081592	12/16/30				
			1081897	12/16/30				
ntainer for same	5% net selling price	11/22/22	Re. 13848	2/18/30				Out for signature
			1081592	12/16/30				Out for signature
	1% net selling price	11/28/22	T. M. 57145			100.00	100.00	
ospho Tungstic Acid	5% net selling price	11/29/22	1232552	7/10/34		100.00	100.00	Income Linz Patent not included
			1378882	5/24/38				
					$274,906.76	$30,200.01	$305,106.77	

DEFENDANT'S EXHIBIT No. 84.

AGENCY AGREEMENT.

WHEREAS,

did adopt and use as a trademark for

and caused to be registered as a trademark for the same in the United States Patent Office the following mark on the following date and under the following number, to wit:

Trademark *Date of Registration.*

Registration Number.

and

WHEREAS, the Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act," approved October 6, 1917, and the amendments thereto, and the executive orders and proclamations issued in pursuance thereof, did, by virtue of a requirement or demand, issued under his hand and seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to him said trademark, together with the business and good will pertaining thereto, and certificate of registration thereof, and also all damages and profits recoverable at law or in equity from any and every person for any and every infringement of said trademark, and did sell, assign and convey the same to THE CHEMICAL FOUNDATION, INC., a corporation organized and existing under and by virtue of the laws of the State of Delaware; and

WHEREAS, said THE CHEMICAL FOUNDATION, INC., is desirous of continuing said business in the United

States and of preserving the good will thereof and of maintaining the use of said trademark in said business as a designation for the aforesaid product; and

WHEREAS,
a corporation organized and existing by virtue of the laws of the State of , (hereinafter called the APPLICANT) is desirous of carrying on said business in the United States and of using said trademark in said business and has applied to said THE CHEMICAL FOUNDATION, INC., for an agency therefor, and it appearing upon investigation by said THE CHEMICAL FOUNDATION, INC., that said APPLICANT is able to carry on said business satisfactorily and properly;

NOW, THEREFORE, in consideration of the premises and the faithful performance of the covenants herein contained, IT IS AGREED:

1.—The said THE CHEMICAL FOUNDATION, INC., hereby constitutes the said APPLICANT an agency for the manufacture and sale of the aforesaid product, under the aforesaid trademark, until surrendered or revoked as hereinafter provided.

2.—The APPLICANT will pay to THE CHEMICAL FOUNDATION, INC., as a consideration for the continuance of the agency, a commission of per centum (%) of the net selling price received by the APPLICANT for the aforesaid product, throughout the continuance of this agreement.

3.—The APPLICANT will keep full, true and accurate books of account containing such particulars as may be required by THE CHEMICAL FOUNDATION, INC., from time to time, of its operations under this agreement, which books and the premises where the business under this agreement is carried on shall be

open to the inspection of THE CHEMICAL FOUNDATION, INC., or its representatives at all reasonable times.

4.—The APPLICANT within thirty days after January first, April first, July first and October first of each year, shall furnish THE CHEMICAL FOUNDATION, INC., a true and accurate report, under oath if required, giving such particulars of the business conducted by the APPLICANT during the preceding three months under this agreement as may from time to time be required by THE CHEMICAL FOUNDATION, INC., and simultaneously with the making of each such report shall pay to THE CHEMICAL FOUNDATION, INC., the commission shown to be due thereby for the period covered by such report.

5.—The APPLICANT covenants to maintain the standard for the aforesaid product sold by it under said trademark, to mark all of said product sold by it with said trademark and otherwise as required by THE CHEMICAL FOUNDATION, INC., to furnish to THE CHEMICAL FOUNDATION, INC., samples of its product, to indicate upon the labels carried by said product, or in another appropriate way, the grade, concentration and/or color, which qualities shall be expressed in terms of a scale of standards to be established by THE CHEMICAL FOUNDATION, INC., to manufacture such product only within the limits of purity and strength prescribed by THE CHEMICAL FOUNDATION, INC., and to submit to the general supervisory authority of THE CHEMICAL FOUNDATION, INC., in the manufacture and sale of such product.

6.—This agreement and the agency granted hereby may be canceled and terminated in the following manner:

THE CHEMICAL FOUNDATION, INC., shall give written notice to the APPLICANT of the proposed cancela-

tion and termination assigning in said notice the cause for which it is proposed to cancel and terminate. If the APPLICANT shall so require within five days after receipt of said notice, the trustees of THE CHEMICAL FOUNDATION, INC., under the deed of trust dated May 1, 1919, between said trustees and Francis P. Garvan, Douglas I. McKay and George J. Corbett shall set a date for a hearing and give the APPLICANT written notice thereof. After hearing the APPLICANT, or upon its failure to appear at the place and date set for such hearing, the trustees shall make a determination in writing, a copy of which shall be furnished to the APPLICANT and which shall be conclusive, final and binding upon the APPLICANT and shall not be reviewable by a Court. If the APPLICANT shall fail to require a hearing or if the trustees shall determine that its agency should be canceled and terminated THE CHEMICAL FOUNDATION, INC., may give the APPLICANT ninety (90) days' notice of termination and cancelation and at the end of said ninety days, this agreement together with the agency aforesaid shall cease and terminate. The APPLICANT may surrender this agreement and the agency aforesaid upon ninety (90) days' notice to THE CHEMICAL FOUNDATION, INC. The surrender or termination of this agreement and said agency shall in no way affect the liability of the APPLICANT for any sums of money accruing or becoming due or payable prior to the date of surrender or termination. Upon surrender or termination of said agency by the APPLICANT commissions at the rate last paid or payable by the APPLICANT upon the aforesaid product shall accrue and become immediately due and payable for all of the product manufactured and/or on hand, or in course of manufacture, or sold and payment for which has not yet been received.

7.—All written notices or permissions referred to herein shall be given by registered mail addressed to the last known address of the respective parties.

8.—This agreement shall be interpreted in accordance with the laws of the State of New York.

In Witness Whereof, the parties hereto have hereunto caused their respective corporate seals to be hereunto affixed and duly attested and these presents to be signed by their duly authorized officers, this day of , 192 .

THE CHEMICAL FOUNDATION, Inc.,
By.....

Attest:
.....
Secretary.

.....
By.....

Attest:
.....
Secretary.

DEFENDANT'S EXHIBIT No. 85.

RH-GM.

April 15, 1919.

Hon. A. Mitchell Palmer,
Attorney General,
Washington, D. C.

Dear Mr. Palmer:

I enclose herewith a release from the Alien Property Custodian to the United States under all patents which are to be transferred to the Chemical Foundation, Inc. I am delivering it to you since it affects patent suits which may be brought against any one

of several of the Government Departments, and which would in the normal course be referred to the Department of Justice.

Respectfully,
(Sgd.) FRANCIS P. GARVAN.

DEFENDANT'S EXHIBIT No. 85-A.

WHEREAS, A. MITCHELL PALMER, formerly Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act", approved October 6, 1917, and the amendments thereto and the executive orders and proclamations issued in pursuance thereof, did during his incumbency of said office of Alien Property Custodian by virtue of requirements or demands issued under his hand and seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to him certain letters patent of the United States and applications for letters patent of the United States which together with other letters patent and applications for letters patent are enumerated in Schedule A hereto attached, together with every right, title and interest with respect thereto including all damages and profits recoverable at law or in equity from any person, firm, corporation or government for past infringement of said letters patent, subject to the rights of citizens of the United States or of friendly nations as stated in certain of the requirements or demands relating to said letters patent and applications for letters patent; and

WHEREAS, I, FRANCIS P. GARVAN, was on the fourth day of March, 1919, duly appointed and thereafter

duly qualified as Alien Property Custodian in succession of the said A. MITCHELL PALMER; and

WHEREAS, I, FRANCIS P. GARVAN, as Alien Property Custodian as aforesaid by virtue of requirements or demands issued under my hand and seal of office and duly recorded in the United States Patent Office and in the Office of the Register of Copyrights of the United States, have seized and required to be conveyed to me certain letters patent of the United States and applications for letters patent of the United States, certain trademarks and the registrations thereof and the business and good-will appurtenant thereto, and certain copyrights and the certificates of registration thereof and the works upon which said copyrights were issued, all of which are included in Schedules A, B and C hereto attached together with every right, title and interest with respect thereto including all damages and profits recoverable at law or in equity from any person, firm, corporation or government for the past infringement of said letters patent, trademarks and copyrights, subject to the rights of citizens of the United States or of friendly nations as stated in certain of the requirements or demands relating to said letters patent, applications for letters patent, trademarks, and registrations thereof, and copyrights; and

WHEREAS, by a certain order bearing date the 26th day of February, 1919, concerning the sale, transfer and release of certain rights under letters patent, trade-marks and similar rights, determined to belong to, or to be held for, or on account of, or on behalf of, or for the benefit of persons determined to be enemies not holding a license or licenses granted by the President within the purview of the "Trading with the

Enemy Act" and the amendments thereto and by another certain order bearing date the 5th day of April, 1919, concerning the sale, transfer and release of certain copyrights, applications for letters patent and applications for the registration of trademarks and copyrights determined to belong to or to be held for, by, on account of or for the benefit of persons determined to be enemies not holding a license or licenses granted by the President within the purview of the "Trading with the Enemy Act" and the amendments thereto, both made by Frank L. Polk under authority of executive order of December 3, 1918, I am empowered to sell such letters patent, applications for lettters patent, trademarks and registrations thereof, and copyrights to The Chemical Foundation, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, as I determine relate to the objects and purposes of the said The Chemical Foundation, Inc., as expressed and defined in its charter and to release and discharge the United States of America and any department thereof from any and all claims and demands arising from any alleged infringement of said letters patent, trademarks and copyrights; and

WHEREAS, I have determined that the letters patent of the United States, applications for letters patent of the United States, trademarks and registrations thereof and copyrights enumerated in Schedules A, B and C hereto annexed relate to the objects and purposes of the said The Chemical Foundation, Inc., as expressed and defined in its charter.

NOW, THEREFORE, in consideration of the sum of Ten dollars ($10.00) to me in hand paid, receipt whereof is hereby acknowledged, I, FRANCIS P. GARVAN, as

Alien Property Custodian as aforesaid, do hereby release and forever discharge the United States of America and all of its departments, from any and all claims and demands for profits and damages recoverable at law or in equity for the past infringement of the letters patent, trademarks and copyrights enumerated in Schedules A, B and C hereto annexed, arising out of the manufacture, use or sale of the inventions of any or all of the said letters patent, or the sale of any article under any or all of said trademarks, or the printing, publication, distribution or sale of the works covered by any or all of said copyrights, by or for the United States of America or any of its departments, subject, however, to the rights of citizens of the United States or of friendly nations, as more fully set forth in the said requirements or demands issued by the said A. Mitchell Palmer as Alien Property Custodian, or by me, as Alien Property Custodian, relating to certain of said letters patent, trademarks and copyrights.

In Witness Whereof, I have hereunto set my hand and seal of office, this day of , 1919.

.....

Alien Property Custodian.

Stipulation Concerning Defendant's Exhibits Nos. 86 and 87.

For the sole purpose of curtailing the record in this cause, it is stipulated between the parties hereto as follows:

1. The Schedules attached to Defendant's Exhibit No. 86 shall not be printed, but in lieu thereof there

shall be printed the following statement immediately following the Acknowledgment contained in Exhibit:

> "Attached as part of said Exhibit are schedules lettered A to E inclusive, identifying the properties intended to be covered by said instrument. Said schedules in the aggregate include substantially all of the patents, applications for patents, trademarks and copyrights theretofore covered in the several instruments of assignment from the Alien Property Custodian to the defendant herein as shown by Plaintiff's Exhibits Nos. 116A to 134A inclusive as corrected by Plaintiff's Exhibits Nos. 135 and 136 and as shown by Plaintiff's Exhibits Nos. 156A and 157A, less such properties as had been theretofore reconveyed by the defendant as shown by Plaintiff's Exhibit No. 487."

2. The schedule attached as a part of Defendant's Exhibit No. 87 consisting of numbered pages 1 to 228 inclusive shall not be printed, but in lieu thereof there shall be printed immediately following the text of the instrument dated the 20th day of December, 1920, the following statement:

> "Attached as a part of this instrument is a schedule consisting of 228 typewritten pages describing the patents covered by said instrument numbering approximately 5700 in all. Pages 1, 79 and 157 of said schedule are printed following this statement as illustrative of the scope of the titles of the patents covered in said schedule. In printing said pages all matter not typewritten shall be omitted."

3. This stipulation is made without prejudice to any objections heretofore made or reserved by the

plaintiff to the admissability of either of said exhibits in evidence; and shall not be used for or against either party hereto in any other proceeding.

Dated at Wilmington, Del.,
this 4th day of August,
1923.

(Sgd.) HERMAN J. GALLOWAY,
Solicitor for Plaintiff.

(Sgd.) LUCIEN H. BOGGS,
Solicitor for Defendant.

DEFENDANT'S EXHIBIT No. 86.

LICENSE BY CHEMICAL FOUNDATION, INC. TO NAVY DEPARTMENT

RELEASE AND LICENSE.

This instrument made this 17th day of November, 1921, by THE CHEMICAL FOUNDATION, INCORPORATED, a corporation organized under the laws of the State of Delaware, hereinafter called THE FOUNDATION, to THE GOVERNMENT OF THE UNITED STATES OF AMERICA, hereinafter called THE GOVERNMENT,

WITNESSETH:

WHEREAS, the Alien Property Custodian of the United States of America, acting under authority of law, sold to THE FOUNDATION, upon certain terms and conditions, certain Letters Patent of the United States, applications therefor, coyprights, certificates of registration thereof, publications upon which such registrations were granted, trade-marks and the good-will and business pertaining thereto, together with certain rights and benefits with respect to any and all of the foregoing, including certain damages and profits re-

coverable at law or in equity for the past infringement thereof; and

WHEREAS, THE FOUNDATION is empowered by the terms of its charter to grant a non-exclusive license to make, use, and sell the inventions covered by any Letters Patent owned or controlled by it to THE GOVERNMENT, upon such terms as its Board of Directors may determine; and

WHEREAS, THE FOUNDATION, among other things, is obligated by the terms and conditions of the aforementioned sales to it by said Alien Property Custodian to release and forever discharge THE GOVERNMENT from any and every claim or demand which THE FOUNDATION acquired by virtue of the aforementioned sales for profits and damages recoverable at law or in equity for any past infringement by THE GOVERNMENT of any and all Letters Patent, applications therefor, copyrights and trade-marks owned or controlled by THE FOUNDATION, and to grant to THE GOVERNMENT, free and without cost, a non-exclusive and non-assignable license to make, use and sell the inventions covered by any and all Letters Patent and applications therefor owned or controlled by it; and

WHEREAS, THE FOUNDATION did on or about the 26th day of February, 1921, issue a certain license upon the terms and conditions therein set forth to THE GOVERNMENT, as represented by the Secretary of the Navy and his successors in office, under the certain Letters Patent specified in the Schedule attached to said license; and

WHEREAS, the said license last mentioned was issued in view of the desire of THE GOVERNMENT for a license under the Letters Patent thereby covered prior

to the time when a license under all of the Letters Patent and applications therefor owned or controlled by said THE FOUNDATION could be effectively prepared; and

WHEREAS, it is desired that THE FOUNDATION now perform and carry out its said obligation by releasing and discharging THE GOVERNMENT, as aforesaid, and by granting to THE GOVERNMENT a license under all of the Letters Patent and applications therefor now owned or controlled by it;

NOW, THEREFORE, In consideration of the premises and of other good and valuable considerations moving it (the receipt of which is hereby acknowledged), THE FOUNDATION hereby releases and forever discharges THE GOVERNMENT, upon the terms and conditions hereinafter set forth, from any and every claim or demand which THE FOUNDATION acquired by virtue of the aforementioned sales for profits and damages recoverable at law or in equity for any past infringement by THE GOVERNMENT of any and all Letters Patent, applications therefor, copyrights, and trade-marks now owned and controlled by THE FOUNDATION, and hereby grants to THE GOVERNMENT, upon the terms and conditions hereinafter set forth, without payment of any further consideration, royalty or license fee whatsoever, a non-exclusive and non-assignable license

(a) to make for its own use and/or to have made for its own use and to use throughout the United States and Territories and dependencies thereof, any and ever invention or discovery under any and all Letters Patent and applications therefor now owned or controlled by THE FOUNDATION, to the end of the several terms for which said Letters Patent and applications therefor have been or may be granted, and

(b) to dispose of, by sale or otherwise throughout the United States and the Territories and dependencies thereof, any and every instrument, machine, apparatus, article, manufacture, composition of matter or product which may have been made by or for it, for its own use, under the above mentioned license dated February 26, 1921, or which shall be made by or for it, for its own use, under the license herein granted, but which after such making it may desire to dispose of, to the end of the several terms for which said Letters Patent and applications therefor have been or may be granted; and any and every such instrument, machine, apparatus, article, manufacture, composition of matter or product so made and disposed of shall remain forever licensed.

TERMS AND CONDITIONS

(1) The acceptance of this release and license according to the terms and conditions hereof by the Secretary of the Navy shall constitute an acceptance of this release and license according to the terms and conditions hereof by THE GOVERNMENT. The Secretary of the Navy and his successors in office shall be considered as the representative of THE GOVERNMENT in any matters arising out of this instrument and any and all action taken by that official in such matters shall be considered as the action of THE GOVERNMENT.

(2) The above mentioned license dated February 26, 1921, issued by THE FOUNDATION to THE GOVERNMENT, as represented by the Secretary of the Navy and his successors in office, is hereby cancelled and terminated.

(3) For the purpose of making it appear in and by this instrument what the specific Letters Patent,

applications therefor, copyrights and trade-marks are under which this release and license is given and granted, schedules shall be prepared by THE FOUNDATION specifying the same, and when such schedules or any part thereof shall have been so prepared and shall have been signed by George J. Corbett, the Secretary of THE FOUNDATION, or his successor in office, the same shall be attached hereto and become and remain a part hereof as if incorporated herein.

(4) This release and license is subject to the terms and conditions of the above mentioned sales by the said Alien Property Custodian to THE FOUNDATION and to any existing right or license under the said Letters Patent and applications therefor with which the grant of this license would be inconsistent; provided, however, that THE FOUNDATION does not mean or imply by the foregoing that other rights or benefits inconsistent herewith do not exist.

(5) That neither THE FOUNDATION nor any officer, representative, agent or agency thereof shall be held or admitted to have made any representation by way of warranty, guaranty, or of other kind whatsoever, express or implied, concerning or in any way representing the Letters Patent and applications therefor licensed hereunder, nor concerning or in any way respecting any right, benefit, or privilege growing out of the same or out of this release and license; it being expressly provided that there shall be no recourse upon THE FOUNDATION or any officer, representative, agent or agency thereof, by way of, and that THE GOVERNMENT will hold THE FOUNDATION and every officer, representative, agent or agency thereof, harmless from, any claim, demand, recoupment, action at law, suit in equity, or otherwise, by virtue of any matter, cause or thing in any way arising under this release and license.

(6) This instrument has been executed in duplicate, each to be treated as an original.

IN WITNESS WHEREOF, THE FOUNDATION has caused its corporate seal to be hereunto affixed and duly attested and this instrument to be signed in its name by its duly authorized officers the day and year first above written.

THE CHEMICAL FOUNDATION,
INCORPORATED,
By (Sgd.) FRANCIS P. GARVAN,
President.

ATTEST: (Sgd.) GEO. J. CORBETT,
(Seal) *Secretary.*

The above release and license is hereby accepted according to the terms and conditions thereof this 27th day of December, 1921.

THE GOVERNMENT OF THE UNITED
STATES OF AMERICA
(Seal) By (Sgd.) THEODORE ROOSEVELT, JR.,
The Acting Secretary of the Navy.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } *ss.:*

On this 17th day of November, 1921, before me came FRANCIS P. GARVAN, to me known, who being by me duly sworn, did depose and say: That he resides in the Borough of Manhattan, City of New York; that he is the President of The Chemical Foundation, Incorporated, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed

by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

(Sgd.) THERESA A. KRAUS,
(Seal) *Notary Public.*
Notary Public, New York County
Clerk's No. 367, Register's No. 3350
Commission expires March 30th, 1923.

"Attached as part of said Exhibit are schedules lettered A to E inclusive, identifying the properties intended to be covered by said instrument. Said schedules in the aggregate include substantially all of the patents, applications for patents, trademarks and copyrights theretofore covered in the several instruments of assignment from the Alien Property Custodian to the defendant herein as shown by Plaintiff's Exhibits Nos. 116A to 134A inclusive as corrected by Plaintiff's Exhibits Nos. 135 and 136 and as shown by Plaintiff's Exhibits Nos. 156A and 157A, less such properties as had been theretofore reconveyed by the defendant as shown by Plaintiff's Exhibit No. 487."

DEFENDANT'S EXHIBIT No. 87.

LICENSE AND RELEASE FROM ALIEN PROPERTY CUSTODIAN DECEMBER 20, 1919, TO NAVY.

The original license dated June 1, 1920, was not used because it named as licensee "The United States of America," instead of "The United States Government, as represented by the Secretary of the Navy." It was superceded by a license dated December 20, 1920.

(Sgd.) J. R. ZIMMERMANN,
Patent Section.

Washington, D. C., January 6, 1921.

Received, of Francis P. Gravan, as Alien Property Custodian of the United States, instrument duly executed by him, dated December 20, 1920, whereby the right and non-exclusive license to practice certain inventions and to use and manufacture, and have manufactured, devices, apparati and instruments covered by Letters Patent as enumerated in said instrument and the schedule annexed thereto, for the United States of America, the undersigned being duly authorized to acknowledge its receipt.

(Sgd.) CHAS. B. McVAY, Jr.,
Rear Admiral United States Navy.
Chief of Bureau of Ordnance,
Navy Department.

File 003560

January 6, 1921.

UNITED STATES OF AMERICA, NAVY DEPARTMENT, BUREAU OF ORDNANCE.

To Francis P. Garvan, as Alien Property Custodian of the United States, Dr.

For the right and license (non-exclusive) to practice any and every invention covered by Letters Patent seized by the Alien Property Custodian, including the right and license (non-exclusive) to use and manufacture and have manufactured for the use of the United States of America devices, apparati and instruments covered by Letters Patent included in instrument and enumerated in schedule annexed thereto, dated December 20, 1920, whereby said rights are granted to the United States of America by the Alien Property Custodian	$100,000.00

This amount is certified to be just and equitable, and payment not received.

.....
As Alien Property Custodian.

A. P. C. Form 7

ALIEN PROPERTY CUSTODIAN
OFFICE MEMORANDUM

To Mr. Zimmermann.
From Mr. Caton.

Date 9/21/20.
In re Attached.

When reply wanted .....

Attached please find the assignment which I spoke to you about yesterday. I would be glad to have you get behind this matter so that the list referred to by Mr. Smith will be completed at the earliest possible date. When it is completed, will you forward it to me with the attached.

HBC:CK

A. P. C. Form 7

ALIEN PROPERTY CUSTODIAN
OFFICE MEMORANDUM

To Mr. Caton.
From Mr. Paul Smith.

Date September 3, 1920
In re Attached.

When reply wanted .....

Note attached memorandum from Mr. Brown. The one thing holding up the payment by the Pay Master General is the failure of the Patent Division to supply the required list of patents. This matter is primarily one for your attention inasmuch as the

Bureau of Sales will have nothing to do with the money when received. We were drawn into the matter when we negotiated for the sale of the rights to a gun-sight patent to the Navy Department in connection with the C. P. Goertz American Optical Company.

In Reply Address
The Secretary of the Navy
and Refer to No.

NAVY DEPARTMENT
WASHINGTON

Sir:

Some six months ago the War and Navy Departments purchased from the Alien Property Custodian certain enemy owned patents then in your possession. The Bureau of Ordnance, Navy Department, deposited with the Paymaster General, subject to withdrawal by the Alien Property Custodian, the sum of one hundred thousand dollars ($100,000).

By agreement between the War and Navy Departments and the Alien Property Custodian a list of these patents to be delivered was to be furnished at once for the information of the two Departments concerned.

The Bureau of Ordnance, Navy Department, has made every effort to obtain this list of patents without result. At this time it is most important that this list of patents to be delivered should be furnished and it is earnestly requested that this list be furnished to the Chief of the Bureau of Ordnance for the information of the Navy and War Departments immediately.

Very truly yors,
(Sgd.) JOSEPHUS DANIELS.

Alien Property Custodian,
16th & P Sts., N. W.,
Washington, D. C.

MEMORANDUM.

To: Mr. Smith.
From: Mr. Brown.

Sept. 2, 1920.

Re: Blanket Assignment of Patents to U. S.

Last June when the matter of the blanket assignment of patents to the United States was pending, we were advised by Capt. Norton that no agreement could be made nor funds appropriated in payment of the consideration until the Custodian forwarded to the Navy Department a full schedule of all patents affected by the agreement and he further notified us that such schedule must be filed within three days, which at that time was impracticable. We compromised by checking a list of 200 patents of particular interest to the Navy and by certifying that these patents were to appear in the Assignment as finally drawn. The Secretary of the Navy was enabled to secure proper appropriation by the Paymaster General and the Paymaster General has been since holding this fund pending delivery of the Assignment.

We are this day advised that the Assignment when submitted must contain the full schedule of patents affected before the Secretaries of the Navy and Army can certify to the Assignment for the purpose of releasing the appropriation to the Alien Property Custodian. We have been since June holding the executed Assignment in question but the same is not acceptable to the Navy Department until made out in its final form by annexing the schedule of patents.

JWB/abc

WHEREAS A. MITCHELL PALMER, formerly Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act," approved Oc-

tober 6, 1917, and the amendments thereto and the executive orders and proclamations issued in pursuance thereof, did, during his incumbency of said office of Alien Property Custodian by virtue of certain requirements or demands issued under his hand and seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to him numerous letters patent of the United States together with all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of said letters patent; and

WHEREAS I, Francis P. Garvan, was on the 4th day of March, 1919, duly appointed and thereafter qualified as Alien Property Custodian in succession of the said A. Mitchell Palmer; and

WHEREAS I, Francis P. Garvan, as Alien Property Custodian as aforesaid, likewise acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act," and the amendments thereto and the executive orders and proclamations issued in pursuance thereof, did, by virtue of certain requirements or demands issued under my hand and seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to me numerous letters patent of the United States together with all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of said letters patent; and

WHEREAS THE UNITED STATES GOVERNMENT, as represented by the Secretary of the Navy and his successors in office, is desirous of acquiring the right and license (non-exclusive) to practice any and every invention covered by any and every letters patent so

seized by me and/or my predecessor in office, the said A. Mitchell Palmer, and still held by me as Alien Property Custodian, including the right and license (non-exclusive) to use and manufacture, and have manufactured, for its use any and every device, apparatus and instrument disclosed in and covered by said letters patent; and is also desirous of having assigned to it all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of said letters patent;

Now, Therefore, To All Whom It May Concern, Be It Known that I, the said Francis P. Garvan, as Alien Property Custodian as aforesaid, in consideration of the sum of One Dollar ($1.00) to me in hand paid by, and for other good and valuable consideration unto me moving from, The United States Government, as represented by the Secretary of the Navy and his successors in office, the receipt whereof is hereby acknowledged, have given and granted and by these presents do give and grant unto The United States Government, as represented by the Secretary of the Navy and his successors in office, without payment of any further consideration, royalty or license fee whatsoever, the right and license (non-exclusive) to practice any and every invention covered by any and every letters patent so seized by me and/or my predecessor in office, the said A. Mitchell Palmer, and still held by me as Alien Property Custodian, including the right and license (non-exclusive) to use and manufacture, and have manufactured, for its use any and every device, apparatus and instrument disclosed in and covered by said letters patent To Have and to Hold the said right and license to the full end of the terms for which said letters patent have been granted.

And for the consideration aforesaid, I, the said Francis P. Garvan, as Alien Property Custodian, as aforesaid, have given and granted and by these presents do give and grant unto The United States Government, as represented by the Secretary of the Navy and his successors in office, the right and license to dispose of by sale or otherwise any and every device, apparatus and instrument which have been or shall have been manufactured by or for it, for its own use under the right and license aforesaid but which after said manufacture or use, it is desired to dispose of.

And for the consideration aforesaid, I, the said Francis P. Garvan, as Alien Property Custodian, have sold, assigned and transferred and set over, and by these presents do sell, assign, transfer and set over unto the United States Government, as represented by the Secretary of the Navy, and his successors in office, all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of the said letters patent arising from the use or manufacture by or for the United States or by any foreign government of any of the inventions described in and covered by said letters patent to the full extent to which the rights to said damages and profits are still held by me as Alien Property Custodian, the same to be received, held and enjoyed by the United States Government, as represented by the Secretary of the Navy and his successors in office.

And for the purpose of making it appear in and by this deed what the specific letters patent are under which the aforesaid right and license is granted and for the past infringement of which the aforesaid damages and profits are assigned to the United States Government, as represented by the Secretary of the

Navy and his successors in office, and for the purpose of recording this deed in the United States Patent Office against said letters patent, a schedule shall be prepared specifying at least the numbers of said letters patent; and said schedule, when so prepared, shall be initialled by me or by the then Alien Property Custodian and shall be attached hereto and become and remain a part hereof as if incorporated herein.

PROVIDED, HOWEVER, that in all cases where an exclusive right or license now exists in favor of a citizen of the United States under any of said letters patent with which a grant of the aforesaid right and license to The United States Government, as represented by the Secretary of the Navy and his successors in office, under the same letters patent, would be inconsistent, then as to such letters patent no right or license to The United States Government, as represented by the Secretary of the Navy and his successors in office, is granted herein, and provided also that the aforesaid right and license to The United States Government, as represented by the Secretary of the Navy and his successors in office, shall be subject in all cases to the rights and claims, as the same may be adjudicated and determined, prosecuted under Section 9 of the "Trading with the Enemy Act," aforesaid; and

FURTHER PROVIDED that this grant and assignment is made without recourse upon the undersigned, Francis P. Garvan, personally, either by the grantee or assignee herein or by any other person or corporation; and neither the Alien Property Custodian, nor any representative or agent or agency thereof shall be held or admitted to have made any representation or guaranty, express or implied, concerning or in any way respecting the aforesaid letters patent, rights, licenses, damages and profits herein granted or assigned or intended so to be.

IN WITNESS WHEREOF I, the said Francis P. Garvan, as Alien Property Custodian as aforesaid, have hereunto set my hand and seal of office this twentieth day of December, 1920.

.....

Alien Property Custodian.

Witness:

.....

DISTRICT OF COLUMBIA, *ss.:*

On this twentieth day of December, 1920, before me came FRANCIS P. GARVAN, Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act", approved October 6, 1917, and the amendments thereto and the executive orders and proclamations issued in pursuance thereof; and he duly acknowledged to me that he executed the foregoing instrument as the Alien Property Custodian, as aforesaid for the uses and purposes therein mentioned.

.....

WHEREAS A. MITCHELL PALMER, formerly Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act", approved October 6, 1917, and the amendments thereto and the executive orders and proclamations issued in pursuance thereof, did, during his incumbency of said office of Alien Property Custodian by virtue of certain requirements or demands issued under his hand and seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to him numerous letters patent of the United States together with all damages and profits recoverable at

law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of said letters patent; and

WHEREAS I, FRANCIS P. GARVAN, was on the 4th day of March, 1919 duly appointed and thereafter qualified as Alien Property Custodian in succession of the said A. Mitchell Palmer; and

WHEREAS I, FRANCIS P. GARVAN, as Alien Property Custodian as aforesaid, likewise acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act", and the amendments thereto and the executive orders and proclamations issued in pursuance thereof, did, by virtue of certain requirements or demands issued under my hand or seal of office and duly recorded in the United States Patent Office, seize and require to be conveyed to me numerous letters patent of the United States together with all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of said letters patent; and

WHEREAS THE UNITED STATES OF AMERICA is desirous of acquiring the right and license (non-exclusive) to practice any and every invention covered by any and every letters patent so seized by me and/or my predecessor in office, the said A. Mitchell Palmer, and still held by me as Alien Property Custodian, including the right and license (non-exclusive) to use and manufacture, and have manufactured, for its use any and every device, apparatus and instrument disclosed in and covered by said letters patent; and is also desirous of having assigned to it all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for

every past infringement of each and all of said letters patent;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN that I, the said Francis P. Garvan, as Alien Property Custodian as aforesaid, in consideration of the sum of One Dollar ($1.00) to me in hand paid by, and for other good and valuable considerations unto me moving from, The United States of America, the receipt whereof is hereby acknowledged, have given and granted and by these presents do give and grant unto The United States of America, without payment of any further consideration, royalty or license fee whatsoever, the right and license (non-exclusive) to practice any and every invention covered by any and every letters patent so seized by me and/or my predecessor in office, the said A. Mitchell Palmer, and still held by me as Alien Property Custodian, including the right and license (non-exclusive) to use and manufacture, and have manufactured, for its use any and every device, apparatus and instrument disclosed in and covered by said letters patent TO HAVE AND TO HOLD the said right and license to the full end of the terms for which said letters patent have been granted.

AND for the consideration aforesaid, I, the said Francis P. Garvan, as Alien Property Custodian as aforesaid, have given and granted and by these presents do give and grant unto The United States of America the right and license to dispose of by sale or otherwise any and every device, apparatus and instrument which have been or shall have been manufactured by or for it for its own use under the right and license aforesaid but which, after said manufacture or use, it is desired to dispose of.

AND for the consideration aforesaid, I, the said Francis P. Garvan as Alien Property Custodian, have sold, assigned and transferred and set over, and by these presents do sell, assign, transfer and set over unto the United States of America all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all of the said letters patent arising from the use or manufacture by or for the United States or by any foreign government of any of the inventions described in and covered by said letters patent to the full extent to which the rights to said damages and profits are still held by me as Alien Property Custodian, the same to be received, held and enjoyed by the United States of America.

AND for the purpose of making it appear in and by this deed what the specific letters patent are under which the aforesaid right and license is granted and for the past infringement of which the aforesaid damages and profits are assigned to The United States of America, and for the purpose of recording this deed in the United States Patent Office against said letters patent, a schedule shall be prepared specifying at least the numbers of said letters patent; and said schedule, when so prepared, shall be initialled by me or by the then Alien Property Custodian and shall be attached hereto and become and remain a part hereof as if incorporated herein.

PROVIDED, HOWEVER, that in all cases where an exclusive right or license now exists in favor of a citizen of the United States under any of said letters patent with which a grant of the aforesaid right and license to The United States of America, under the same letters patent, would be inconsistent, then as to such letters patent no right or license to The United States

of America is granted herein; and provided also that the aforesaid right and license to The United States of America shall be subject in all cases to the rights and claims, as the same may be adjudicated and determined, prosecuted under Section 9 of the "Trading with the Enemy Act" aforesaid; and

FURTHER PROVIDED that this grant and assignment is made without recourse upon the undersigned, Francis P. Garvan, personally, either by the grantee or assignee herein or by any other person or corporation; and neither the Alien Property Custodian, nor any representative or agent or agency thereof shall be held or admitted to have made any representation or guaranty, express or implied, concerning or in any way respecting the aforesaid letters patent, rights, licenses, damages and profits herein granted or assigned or intended so to be.

IN WITNESS WHEREOF I, the said Francis P. Garvan, as Alien Property Custodian as aforesaid, have hereunto set my hand and seal of office this first day of June, 1920.

~~FRANCIS P. GARVAN~~,
(Seal) *Alien Property Custodian.*

Witness:
~~SOPHIE HILLMAN~~

DISTRICT OF COLUMBIA, *ss:*

On this first day of June, 1920, before me came Francis P. Garvan, Alien Property Custodian, duly appointed, qualified and acting under the provisions of the Act of Congress known as the "Trading with the Enemy Act," approved October 6, 1917, and the amendments thereto and the executive orders and proclamations issued in pursuance thereof; and he

duly acknowledged to me that he executed the foregoing instrument as the Alien Property Custodian as aforesaid for the uses and purposes therein mentioned.

(Sgd.) ALVIN G. BELT,
(Seal) *Notary Public, D. C.*
Term expires Jan. 4th, 1921.

"Attached as a part of this instrument is a schedule consisting of 228 typewritten pages describing the patents covered by said instrument numbering approximately 5700 in all. Pages 1, 79 and 157 of said schedule are printed following this statement as illustrative of the scope of the titles of the patents covered in said schedule. In printing said pages all matter not typewritten shall be omitted."

(Page 1 of schedule.)

Moritz Mendel,	690,598,	1- 7-1902	Rosetts for forming crossed joints for metal bars.
Franz Quatram,	690,606,	1- 7-1902	Mantle holders for incandescent gas burners.
Joseph Freckmann,	690,646,	1- 7-1902	Ceilings.
Wilhelm Erny,	690,710,	1- 7-1902	Galvanic batteries.
Frederick W. Rogler,	690,879,	1- 7-1902	Arrangement of valves for pumps, etc.
Johann Ludwig,	690,908,	1-7-1902.	Vehicle-heel Tire.
Franz Josef Halbekam,	690,947,	1-14-1902.	Safety Razors.
Bernhard Mannfeld,	690,974,	1-14-1902.	Process for reproducing colored original etchings.
Gustav Tresenreuter,	691,019,	1-14-1902.	Regulating device for gas or vapor stoves.
Josef Zura,	691,041,	1-14-1902.	Mechanism for admitting or shutting off steam for rotary motors.
Wilhelm Nossian,	691,167,	1-14-1902.	Cart or car discharging device.
Heinrich Schickler,	691,184,	1-14-1902.	Coloring tools.

Inventor.	Patent No.	Date of Issue.	Title.
Swboda & Rothe,	691,205,	1-14-1902.	Machines for bending sheet metal plates.
Paul Lehmann,	691,280,	1-14-1902.	Automatic gas ignition device.
Arthur Abendroth,	691,343,	1-21-1902.	Steam pump.
Adolf Hoffmann,	691,379,	1-21-1902.	Devices moistening and applying gummed paper.
Appolinaris Hrebicek,	691,381,	1-21-1902.	Subterranean current transmission for electric railways.
Hubert Schmidt & Wilhelm Haensch,	691,411,	1-21-1902.	Cinematographs.
Emilie Wolffgang,	691,518,	1-21-1902.	Combined wardrobe and travelling trunk.
Arthur Abendroth,	702,903,	6-24-1902.	Proportionate-distribution valve system for pumps.

(Page 79 of schedule.)

Inventor.	Patent No.	Date of Issue.	Title.
Curt Handwerck,	782,500,	2-14-05.	Lash. devices for card punch. machines.
Robert Nass,	784,960,	3-14-05.	Rotary Engine.
Rudolf Klemm & Felix Reiss,	785,004,	3-14-05.	Elec. Motor.
Johannes Wilhelmi,	785,139,	3-21-05.	Elec. driven hoists or coal whips.
Friedrich August Haselwander,	785,166,	3-21-05.	Internal-Combustion Engine.
Louise Busch,	785,195,	3-21-05.	Procs. of and app. for saturat. paper rolls.
Carl Dietrich,	785,204,	3-21-05.	Snow Plows.
Arthur Korn,	785,221,	3-21-05.	Auto Telegraphy.
Raimund Zentner,	785,788,	3-28-05.	Dental Tools.
Hugo Kuhnert,	785,896,	3-28-05.	Candle holders and extinguishers.
Robert Fallnicht,	785,939.	3-28-05.	Device for lubricating rails.
Anton Hepnar,	786,215,	3-28-05.	Apparatus for treating animal colics or grippes.
Ludwig Brandau,	786,479,	4- 4-05.	Couplings for railway vehicles.
Hermann Eberhardt,	786,490,	4- 4-05.	Adding Machines.
Ludwig Neumann,	786,667,	4- 4-05.	Emergency Throttle-Valve.

Inventor.	Patent No.	Date of Issue.	Title.
Georg Zapf,	806,728,	12- 5-05.	Devices for preventing the overcharging of electric cables.
Friedrich Lux	786,823,	4-11-05.	Electricity meters.
Samuel Voss,	786,861,	4-11-05.	Device for setting Freestones.
Alfred Bode and Karl Bottcher,	787,022,	4-11-05.	Turning shovel dredgers.
Michael von Dolivo-Dobrowolsky,	787,027,	4-11-05.	Monophase and polyphase alternating current machines.
Heinrich Gertsmann,	787,029,	4-11-05.	App. for preventing collision on railways.
Bruno Jackisch,	787,043,	4-11-05.	Elec. arc. lamps.
Johan Jakob Bourcart,	787,070,	4-11-05.	Support for Motor Cycles.
Carl Arnold,	787,140,	4-11-05.	Hand Rests for Note Books.
	(Page 157 of Schedule.)		
Friedrich Wiechard,	960,212,	5-31-10.	Vehicle wheel tires.
Edmund Steil,	961,040,	6- 7-10.	Inverted gas burners.
Max Martin & Hans Dahl,	961,107,	6-14-10.	Signaling devices for Dahl speed indicators.
Henry S. Hatfield,	961,124,	6-14-10.	Electrolytic app. with annular anode.
Elisabeth Schulte-Uechting,	961,166,	6-14-10.	Abdominal supporter.
Robert Brukenhaus,	961,402,	6-14-10.	Regulating app. for hot water pipes, etc.
Josef Muchka,	961,419,	6- 4-10.	Testing devices.
Carl Friedr. Droll,	961,588,	6-14-10.	Pyrophoric igniting devices for lamps of cycles, automobiles, etc.
Israel Schlossberg,	961,651,	6-14-10.	Method of producing acid and fire proof bodies.
Johann Mayr,	961,726,	6-14-10.	Double sliding sash windows.
Ludwig Horst,	961,859,	6-21-10.	Carbonic acid motors.
Otto von Bottenburg,	962,053,	6-21-10.	Fountain pen attachment.
Weise & Rieche,	962,108,	6-21-10.	Procs. of app. for utilizing the energy of waste gases.
Emil Witzenmann,	962,186,	6-21-10.	Winding-head for armoring cables and the like.
Ernst Johannes Paul Slotta,	962,171,	6-12-10.	Templets or gages.

Inventor.	Patent No.	Date of Issue.	Title.
Hermann Knopping,	962,643,	6-28-10.	Albums.
Hans Lorenz,	963,378,	7- 5-10.	Turbines or centrifugal pumps.
Ernst Weiler,	963,408,	7- 5-10.	Pencil sharpener.
Otto Brucke,	963,510,	7- 5-10.	App. for the purification of oils and similar bodies.
Otto Hajek,	963,547,	7- 5-10.	Lubricator.
Paul Schmahl,	963,655,	7- 5-10.	Locking means for doors and the like.
Johannes Gorner,	964,015,	7-12-10.	Electricity measuring instruments.
Hans Hirt,	964,021,	7-12-10.	Cash-box.
Hermann Uihlein,	964,341,	7-12-10.	Methods of utilizing spent fire gases from a furnace for firing other furnaces.
Emil Volkers,	964,343,	7-12-10.	Rotary field magnets.

DEFENDANT'S EXHIBIT No. 88.

Copy

NAVY DEPARTMENT,
WASHINGTON.

March 16, 1920.

Sir:

It is deemed advisable by the War and Navy Departments to acquire for the Government the right to manufacture, cause to be manufactured, use and sell under each of the German owned United States Patents seized by the Alien Property Custodian, under which you may have appropriate rights, which patents number it is understood 27,000 more or less, and in connection therewith the entire rights and interest in and to all damages and profits recoverable at law or in equity from any and every person, firm, corporation or government for every past infringement of each and all such patents,

The sum of $100,000 is hereby offered you as compensation in full for the licenses and rights stated above, the licenses to include release and discharge

f the United States of and from any and all claims nd demands arising from alleged infringement.

The favor of an early answer to this proposal ould be appreciated.

Very respectfully,

(Sgd.) FRANKLIN D. ROOSEVELT,
Acting Secretary.

lien Property Custodian,
Washington, D. C.

Alien Property Custodian
Washington, D. C.
INCLOSURE
No. 11854

DEFENDANT'S EXHIBIT No. 89.

December 31, 1922.

LICENSEES OF THE CHEMICAL FOUNDATION AND WHAT THEY MANUFACTURE.

SUMMARY

Industry	*No. of Licensees*
1. Cameras and films	1
2. Cellulose Products	1
3. Chemical Engineers	1
4. Coke and Coke Ovens	1
5. Dyes, Intermediates, Crude Coal Tar Products and Photographic Chemicals	20
6. Electrical Apparatus	3
7. Explosives	1
8. Gyroscopes	2
9. Heavy Chemicals	4
10. Industrial Factory Equipment	1
11. Insecticides	1

Industry	*No. of Licensees*
12. Magnetic Separators	1
13. Metallurgical Products	5
14. Paints and Varnishes	2
15. Perfume Chemicals	1
16. Petroleum Oils	1
17. Pharmaceuticals	18
18. Printing & Lithographic Inks and Printers Supplies	9
19. Quartz Products	1
20. Roofing Products	1
21. Sewage Disposal Apparatus	1
22. Solder and Flux	1
23. Tanning Materials	4
24. Textile Goods and chemicals	4
25. Textile Dyers, Printers and Bleachers	1
26. Therapeutic, Scientific and Optical Apparatus	15
27. Vegetable Oils and Fats	1
28. Water and Steam Apparatus	1
Total	103

LICENSEES OF THE CHEMICAL FOUNDATION, INC., AND THE NATURE OF THEIR BUSINESS.

December 31, 1922.

Licensee	Business
1. Abbott Laboratories, The	Pharmaceuticals
2. Adams X-Ray Company	Therapeutic Apparatus
3. Aluminum Company of America	Aluminum and Aluminum Alloys
4. American Cotton Oil Company, The	Vegetable Oils, Fats
5. American Ethers Corporation	Cellulose Products
6. American Solder & Flux Co.	Solder and Flux

Licensee	Business
7. Atlantic Chemical Works,	Tanning Materials
8. Atmospheric Nitrogen Corporation	Heavy Chemicals
9. Ault & Wiborg Company, The	Printing and Lithographic Inks
10. Badger & Sons Co., E. B.	Chemical Engineers
11. Barnsdall Refining Company	Petroleum Oils
12. Barrett Company, The	Coal Tar Crudes and Intermediates, Tar Products
13. Bausch & Lomb Optical Co.	Optical Apparatus
14. Baush Machine Tool Co.	Metallurgical Products
15. Bilhuber, Inc., E.	Pharmaceuticals
16. Brady & Co., Geo. W.	Therapeutic Apparatus
17. Brooklyn Color Works, Inc.	Dyes
18. Burdick Cabinet Co.	Therapeutic Apparatus
19. Butterworth-Judson Corporation	Dyes and Intermediates
20. Calco Chemical Company, The	Dyes, Intermediates, Pharmaceuticals.
21. California Ink Company, Inc.	Printing and Lithographic Inks
22. Campbell & Co., John	Dyes and Intermediates
23. Carrie Gyroscopic Corporation, The	Gyroscopes
24. Case-Woodland Drug Co., The	Pharmaceuticals
25. Child, Albert Kennedy	Metallurgical Products
26. Cochrane Corporation, H. S. B. W.	Water and Steam Apparatus
27. Diarsenol Laboratories, Inc.	Pharmaceuticals
28. Dow Chemical Company, The	Dyes, Intermediates, Heavy Chemicals
29. Du Pont de Nemours & Company, Inc., E. I.	Pharmaceuticals, Explosives, Dyes, Intermediates, Plastics, Heavy Chemicals
30. Eastman Kodak Company	Cameras, Films and Organic Chemicals
31. Engeln Electric Company, The	Therapeutic Apparatus
32. Gaskill Chemical Corporation, The	Dyes and Intermediates
33. Hanovia Chemical & Mfg. Co.	Therapeutic and Scientific Apparatus

Licensee	Business
34. Hawthorne Chemical Company	Tanning and Textile Chemicals
35. Heller & Merz Co., The	Dyes and Intermediates
36. Hooker Electrochemical Company	Heavy Chemicals
37. Huber, J. M.	Printing and Lithographic Inks
38. Hydrosulphite Co., Inc., The	Textile Chemicals
39. Jaeger Research Laboratories, Inc.	Electrical Apparatus
40. Jaenecke-Ault Company	Printing and Lithographic Inks
41. Katode X-Ray Tube Co., Inc.	Therapeutic Apparatus
42. Keystone Roofing Mfg. Company	Roofing Products
43, Klipstein & Sons Co., E. C.	Dyes, Intermediates, Heavy Chemicals
44. Kohnstamm & Co., H.	Dyes
45. Koppers Company, The	Coke and Coke Ovens
46. Kuttroff, Pickhardt & Co., Inc.	Dyes and Chemicals
47. Leitz Inc., E.	Therapeutic and Scientific Apparatus
48. Liebel-Flarsheim Company, The	Therapeutic Apparatus
49. Lysoform Corporation	Pharmaceuticals
50. Machlett & Son, E.	Therapeutic and Scientific Apparatus
51. McKesson & Robbins	Pharmaceuticals
52. Magnetic Manufacturing Co.	Magnetic Separators
53. Mallinckrodt Chemical Works	Pharmaceuticals, Heavy Chemicals
54. Mallory & Co., Inc., P. R.	Electrical Apparatus
55. Maple Chemical Company, Inc.	Dyes and Intermediates
56. Marshall, John G.	Photographic Chemicals
57. Martin Cantine Company	Printers' Supplies
58. Merck & Co.	Pharmaceuticals
59. Merrimac Chemical Co.	Intermediates and Heavy Chemicals
60. Metz, H. A.	Pharmaceuticals
61. Metz Laboratories, Inc., H. A.	Pharmaceuticals
62. Meyer Co., The Wm.	Therapeutic Apparatus
63. Monsanto Chemical Works	Pharmaceuticals, Intermediates and Heavy Chemicals.

Licensee	Business
64. National Aniline & Chemical Company, Inc.	Dyes, Intermediates, Heavy Chemicals
65. Newport Chemical Works, Inc.	Dyes, Intermediates and Heavy Chemicals
66. Norma Company of America, The	Metallurgical Products
67. Novocol Chemical Mfg. Co., Inc.	Pharmaceuticals
68. Organic Laboratories Company, The	Insecticides and Pharmaceutical Preparations
69. Pacific Flush-Tank Company	Sewage Disposal Apparatus
70. Parke, Davis & Company	Pharmaceuticals
71. Powers - Weightman - Rosengarten Co.	Pharmaceuticals and Heavy Chemicals
72. Rhodia Inc.	Pharmaceuticals and Photographic Chemicals
73. Riverside & Dan River Cotton Mills, Inc.	Textile Goods
74. Roessler & Hasslacher Chemical Company, The	Heavy Chemicals and Pharmaceuticals
75. Rohm & Haas Company, Inc.	Textile and Tanning Chemicals
76. Rosenthal Electric Laboratory	Electrical Apparatus
77. Semet-Solvay Company	Heavy Chemicals
78. Shaw Association, Inc., The	Tanning Materials
79. Siegle Corporation of America, G.	Dyes
80. Sidio Company of America, Inc., The	Quartz ware.
81. Siemon & Elting	Printing and Lithographic Inks
82. Sigmund Ullman Company	Printing and Lithographic Inks
83. Sinclair & Valentine Co.	Printing and Lithographic Inks
84. Sperry Gyroscope Company, The	Gyroscopes
85. Squibb & Sons, E. R.	Pharmaceuticals
86. Stearns-Roger Manufacturing Co., The	Metallurgical Products
87. Sturtevant Company, Inc., B. F.	Industrial Factory Equipment
88. Sun Chemical & Color Co.	Printing and Lithographic Inks
89. Textile Alliance, Inc.	Dyes
90. Toch Brothers	Paints, Varnishes
91. Tower Manufacturing Co., Inc.	Dyes and Chemicals

Licensee	Business
92. United States Finishing Company, The	Textile Dyers and Printers
93. United States Procaine Company	Pharmaceuticals
94. Ultro Chemical Corporation	Dyes
95. Upjohn Company, The	Pharmaceuticals
96. Van Dyk & Co.	Perfume Chemicals and Organic Products
97. Victor X-Ray Corporation	Therapeutic Apparatus
98. Violi, Claude	Therapeutic Apparatus
99. Waite & Bartlett Manufacturing Company,	Therapeutic Apparatus
100. Wappler Electric Company	Therapeutic Apparatus
101. Wilhelm Company, The A.	Paints and Varnishes
102. Wolf & Co., Jacques	Dyes, Intermediates, Textile Chemicals
103. Yocum Laboratories, The	Tanning Materials.

DEFENDANT'S EXHIBIT No. 90.

THE CHEMICAL FOUNDATION, INC.

STATEMENT SHOWING NUMBER OF LICENSES ISSUED EACH YEAR AND NUMBER OF PATENTS INVOLVED.

Year	*No. of Licenses*	*No. of Patents & Trade-marks*	*Originally Licensed*	*Previously Licensed*
1919	46	53	53	none
1920	131	374	349	25
1921	161	121	59	62
1922	41	51	11	40
	379		472	

There is included in the above 30 licenses covering 32 trademarks. The total number of licenses issued on patents are 349 and covers 440 individual patents.

DEFENDANT'S EXHIBIT No. 91.

THE CHEMICAL FOUNDATION, INC.

STATEMENT OF INCOME AND EXPENSES

From Beginning of Operations to December 31, 1922.

Income		
Royalties and License Fees from Patents acquired from Alien Property Custodian, Schedule 1	$661,706.28	
Royalties and License Fees from Patents acquired from others	2,166.28	
Contracts Acquired	2,442.06	
Licensed Trademarks	11,196.76	
Contributions Received	11,500.00	
Interest and Discount Received	10,914.45	
Total Income		$699,925.83
Expenses		
Office and General Salaries	$205,466.68	
Legal Expense	74,915.35	
Literature and Pamphlets	39,197.98	
Patent Sundry Expense	62,562.08	
Rent	27,500.00	
Stationery, Office Supplies and Postage	10,443.61	
Traveling Expense	13,249.21	
Investigation	2,037.28	
Subscriptions and Periodicals	1,149.33	
Insurance	588.41	
Telephone and Telegraph	4,900.85	
Office Alterations	3,427.45	
Taxes	2,752.70	
Laboratory Expense	682.74	

Photostat Expense	$1,558.88	
Depreciation on Furniture and Fixtures	6,451.37	
Washington Office Expense	23,389.26	
Miscellaneous Expenses	12,448.79	
Light	306.46	
Organization Expense	11,574.84	
Lilienfeld Patent Expense	1,576.96	
Loss on Sale of Furniture and Fixtures	1,181.04	
		507,361.27
Net Income, before charging educational expense		$192,564.56
Educational Expense—Literature and Pamphlets, Exhibit B		340,245.76
Deficit at December 31, 1922, per books		$147,681.20

DEFENDANT'S EXHIBIT No. 91-A.

EXHIBIT "B."

THE CHEMICAL FOUNDATION, INC.

STATEMENT OF EDUCATIONAL EXPENSE FROM APRIL 10, 1919, TO DEC. 31, 1922.

Copies of Creative Chemistry	$60032.73	
Postage and Express Charges	12904.01	
Express charges on returns	384.86	
Distributing letters in connection with Creative Chemistry	17184.45	
Envelopes for Creative Chemistry	1534.94	
Envelopes, letterheads and second sheets for letters	2607.37	
Postage on Creative Chemistry letters	1088.92	

Sundry items such as social registers, carting books to Post Office, etc.	$221.03	
		$95958.31
Copies of The Future Independence and Progress of American Medicine in the Age of Chemistry	$28573.42	
Distributing Literature—(Addressing Envelopes)	2832.26	
Envelopes	1880.00	
Postage	14853.88	
Sundry Items—such as carting books to Post Office, etc.	86.12	
		48225.68
Copies of An Exhibit—prepared under the auspices of The National Research Council	$9802.00	
Distributing Literature—(Addressing Envelopes)	579.22	
Envelopes	1737.66	
Postage	7240.00	
Sundry Items—Special plates, Art Work, Mailing list, etc.	414.55	
		19773.43
Copies of F. P. Garvan's Address at Columbia University—9/7/21	$5835.76	
Distributing Literature—Addressing Envelopes	579.21	
Envelopes	1027.66	
Postage	6133.74	
Sundry Items—Mailing list, expressage, etc.	224.03	
		13800.40

Aims & Purposes of The Chemical Foundation, Inc.	$11694.06	
Sundry Items—Cartage and express charges	98.14	
		$11792.20
Copies of Choate Brief before the Finance Committee of The United States Senate	$2688.37	
Distributing Literature—(Addressing & Mailing)	521.92	
Envelopes and signature cut	307.00	
Postage	4000.00	
		7517.29
Copies of What the Chemist Has Done and May Do for Them in War and Peace		2700.00
Copies of Testimony of the Army and Navy	$2300.00	
Postage	2330.00	
		4630.00
Carried Forward		$204397.31

EDUCATIONAL LITERATURE TO DEC. 31, 1922.

Brought Forward		$204397.31
Copies of Quick Article—What about Chemical Warfare	$1502.00	
Envelopes	700.00	
Postage	740.00	
		2942.00
Copies of F. P. Garvan's letter to President Harding	1784.00	
Envelopes	600.00	
Postage	2456.54	
		4840.54
Copies of Yale Alumni Chemical Number	1191.24	
Postage	280.00	
Sundry Items—Express charges on return of envelopes	25.25	
		1496.49

Copies of Riddle of the Rhine	$1473.59	
Postage and Express Charges	163.06	
Binding	900.00	
Sundry Items—Brokerage charges, duty, cartage, etc.	291.20	
		$2827.85
Copies of Choate's address at 21st Annual Meeting of the National Civic Federation		2406.00
Copies of Tariff Information Series #22		1500.00
Copies of Article—Hoover Considers Dye Industry Aid	142.00	
Postage	408.00	
		550.00
Copies of Statement of F. P. Garvan before the Subcommittee of the Senate Finance Committee on the Longworth Bill		2863.00
Copies of An Appeal	250.00	
Postage	408.00	
		658.00
Copies of Tariff Commission Report		1500.00
Copies of Reprint—Daily News Record	485.00	
Postage	650.00	
		1135.00
Copies of Why the Coal Tar Industry Must be Preserved and How to Accomplish it	470.00	
Postage	99.74	
Sundries—Linotype Metal	43.44	
		613.18
Copies of Atlantic Monthly	176.00	
Postage	21.08	
		197.08
Carried Forward		$227926.45

EDUCATIONAL LITERATURE TO DEC. 31, 1922

Brought Forward		$227926.45
Copies of Ida Tarbell Article	$405.50	
Sundry items—folding and express charges	410.40	
		815.90
Copies of (Dr. Rose Pamphlet		
(Chemistry in Elementary Schools		
(Treasure Hunting		2190.00
Copies of Minnesota Tribune	200.00	
Express charges	101.88	
		301.88
Copies of Reprints—Manufacturers Record 1/13/21	304.33	
Addressing and mailing 96 copies	4.80	
		309.13
Copies of Reprint—Chemical Disarmament from Chemical and Metallurgical Engineering—1/5/21		120.00
Copies of Germany's Commercial Grip on the World		500.00
Copies of Germany and the Next War		809.25
Copies of Reprint of Tariff Article from Drug & Chemical Mkts.		300.00
Copies of Dye License Control		444.50
Copies of Layton's Speech		89.00
Copies of Coals to Newcastle		150.00
Copies of Lenroot Speech	67.66	
Postage	25.00	
		92.66
Copies of Allied Booklets		325.00
Copies of Morton Booklets		366.85
Copies of Literary Digest—Dec. 2, 1922 Issue		250.00
Industrial Survey & Research Service—Enlisting Aid of		

American Women in Chemical Research and making chemical survey of U. S.	$9139.25
Wilder D. Bancroft—Work in connection with writing a book on the theory of dyeing and a contribution to continue the publishing of "The Journal of Physical Chemistry"	5500.00
National Research Council—Development of Chemical Information useful to the Industries of National Defense and Chemical Medicine, Standardization of Biological Stains and Chemical Exhibits	11000.00
H. S. Kimberly—Co-operating with Chemical Warfare Service—filming the blowing up of battleships	1983.32
H. S. Kimberly—Co-operating with National Research Council with Chemical Exhibit at Boston and Wash., D. C.	3865.31
Larkin G. Mead—Traveling Expenses	1508.45
American Legion	1287.00
Transcript & Copy of Hearings before Senate & Finance Committees	328.20
American Chemical Society—A contribution to enable them to keep up their publications	5000.00
Rent	2626.00
Salaries	54295.20

Addressograph Expense	$2539.41
Expenses attending meetings for the purpose of writing the book "The Future Independence of American Medicine in the Age of Chemistry"	1134.56
Miscellaneous Literature, stationery, postage, cartage, etc.	5048.44
	$340245.76

DEFENDANT'S EXHIBIT No. 92.

THE CHEMICAL FOUNDATION, INC.

STATEMENT OF COSTS OF PROPERTIES ACQUIRED FROM ALIEN PROPERTY CUSTODIAN AS VERIFIED WITH ORIGINAL ASSIGNMENTS AND IN THE CASE OF APRIL 10th ASSIGNMENT WITH PHOTOSTATIC COPY OF ASSIGNMENT.

PROPERTIES ACQUIRED

Date of Assignment	Patents	Applications	Trademarks	Copyrights	Contracts	Cost
1919						
Apr. 10	3,854	243	850	492	46	$250,000.00
May 2			2		1	50.00
May 6	14					500.00
May 15	1					50.00
June 17	52	19			1	3,650.00
June 21	1	1	2		3	450.00
Oct. 17	21					1,050.00
Dec. 9		22				1,100.00
1920						
Mar. 9	26		20			2,300.00
May 4	32	1				1,750.00
May 15	401					5,000.00
Dec. 21	2					100.00
1921						
Feb. 19	351					5,000.00
Feb. 26					6	300.00
Apr. 27	9	2				550.00
*Nov. 5			—			—
	4,764	288	874	492	57	$271.850.00

* Assignment of Nov. 5, 1921, for 136 Trademarks are included in assignment of April 10, 1919.

DEFENDANT'S EXHIBIT No. 93.

THE CHEMICAL FOUNDATION, INC.

SUMMARY STATEMENT OF INCOME AND OTHER RECEIPTS AND DISPOSITION THEREOF FROM APR. 10, 1919 TO DEC. 31, 1922 AND BALANCE NET ASSETS REMAINING AT DECEMBER 31, 1922.

RECEIPTS		
Proceeds from Sale of Capital Stock	$428,900.00	
Contributions EXHIBIT A	11,500.00	
Income from Properties acquired from A. P. C. EXHIBIT A	675,345.10	
All other income, Bank interest, etc. EXHIBIT A	13,080.73	
		$1,128,825.83
DISPOSITION		
Paid to A. P. C. for properties acquired EXHIBIT C	$271,850.00	
Expenses chargeable to conduct of company's affairs, being all expenditures exclusive of amortization, interest on investment, and expenditures for educational work EXHIBIT A	507,361.27	
Expenditures on educational work EXHIBIT B	340,245.76	1,119,457.03
Liquid Net Assets Remaining		$9,368.80
Properties Capitalized		271,850.00
Capital per Books		$281,218.80

This capital is made up of the following:

Patents, Trademarks, and Formulas		$271,850.00	
Furniture and Fixtures, less Depreciation		16,328.45	
Cash		1,862.67	
Royalties Accrued		51,569.79	
Prepaid Insurance		207.48	
		$341,818.39	
Less:			
Royalties Received in Advance	$2,845.44		
Loan Payable	1,000.00		
Due Sundry Creditors	56,754.15	60,599.59	$ 281,218.80

DEFENDANT'S EXHIBIT No. 94.

THE CHEMICAL FOUNDATION, INC.

SUMMARY SHOWING YEARLY EXPIRATION OF INCOME PRODUCING PATENTS AND AMOUNTS EARNED THEREON, WITH PERCENTAGE FOR EACH YEAR TO THE TOTAL NUMBER OF INCOME PRODUCING PATENTS AND TOTAL AMOUNTS EARNED.

Year.	*Patent No.*	*Percent to total.*	*Amount of Royalty.*	*Percent of Total*
1919 to 1922 inc.	46	9.37	$115,417.79	17.44
1923	15	3.05	34,306.00	5.18
1924	20	4.07	44,457.40	6.72
1925	26	5.30	62,732.86	9.50
1926	27	5.50	31,948.21	4.83
1927	30	6.11	93,851.51	14.18

Year.	*Patent No.*	*Percent to total.*	*Amount of Royalty.*	*Percent of Total.*
1928	27	5.50	$63,686.22	9.62
1929	37	7.53	28,755.03	4.34
1930	49	9.98	89,490.65	13.52
1931	42	8.55	23,797.92	3.60
1932	53	10.79	15,393.87	2.33
1933	61	12.43	17,551.11	2.65
1934	31	6.32	34,217.40	5.17
1935	20	4.07	5,155.79	.78
1936	5	1.02	185.51	.03
1937	2	.41	759.01	.11
Totals	491	100%	$661,706.28	100%

DEFENDANT'S EXHIBIT No. 95.

[No Exhibit. See Defendant's Exhibit No. 102.]

DEFENDANT'S EXHIBIT No. 96.

Book entitled "Creative Chemistry," by Edwin E. Slosson.

(Not Printed.)

DEFENDANT'S EXHIBIT No. 97.

Pamphlet entitled "The Future Independence and Progress of American Medicine in the Age of Chemistry."

(Not Printed.)

DEFENDANT'S EXHIBIT No. 98.

Book entitled "The Riddle of the Rhine," by Victor Lefebure.

(Not Printed.)

DEFENDANT'S EXHIBIT No. 99.

Pamphlet entitled "An Exhibit Prepared under the Auspices of the National Research Council with the cooperation of the Chemical War Service of the United States Army," now permanently installed at the Smithsonian Institute, Washington, D. C.

(Not Printed.)

DEFENDANT'S EXHIBIT No. 100.

Bulletin, 1920, No. 26, Bureau of Education, Department of the Interior entitled "Reorganization of Science in Secondary Schools."

(Not Printed.)

DEFENDANT'S EXHIBIT No. 101.

Pamphlet entitled "The Dyes Question."

(Not Printed.)

DEFENDANT'S EXHIBIT No. 102.

THE CHEMICAL FOUNDATION, INC.

STATEMENT SHOWING EARNINGS ON THE 874 TRADEMARKS ACQUIRED FROM THE ALIEN PROPERTY CUSTODIAN FROM APRIL 10, 1919, TO DEC. 31, 1922, WITH DATA AND RESULTS IN RESPECT TO SUCH EARNINGS AND EXPENSES IN CONNECTION THEREWITH.

Earning by Chemical Foundation, Inc. Direct		$11,196.76
Average annual gross income on the 874 Trademarks		$ 2,985.80
Average annual gross income for each of the 874 Trademarks acquired		$ 3.42
Deduct: Proportion of expenses applicable to Trademarks	$20.88	
6% interest on Investments	4.12	
Amortization Expense	3.74	28.74
Average annual net Loss for each Trademark, exclusive of Educational literature		$ 25.32
The above income, $11,196.76, was earned by 30 trademarks which is only 3-1/2% of the number of trademarks acquired from the Alien Property Custodian. The remaining 844 trademarks have never earned anything.		
Number of trademarks acquired from A. P. C.		874
Number of trademarks expired to Dec. 31, 1922	41	
Number of trademarks Re-assigned	34	75
Number of trademarks at December 31, 1922		799

The Chemical Foundation, Inc.

Statement of Income Earned on Trademarks Assigned to Chemical Foundation, Inc., by the Alien Property Custodian From April 10, 1919, to Dec. 31, 1922.

License No.	Date of License	Name of Licensee	Name of Trademark	Trademark No.	Royalty	License Fees	Total
83	2/6/20	E. Bilhuber, Inc.	Ichthalbin	31114	$ 91.98	$ 100.00	$ 191.98
84	2/6/20	E. Bilhuber, Inc.	Diuretin	55759	1,084.30	100.00	1,184.30
85	2/6/20	E. Bilhuber, Inc.	Euresol	88894	461.62	100.00	561.62
91	3/2/20	Merck & Co.	Antithyroidin	54995	44.30	100.00	144.30
92	3/31/20	Merck & Co.	Moebius Diplosal	85549	49.36		49.36
			Iodipin	32003			
			Bromopin	32002			
			Fibrolysin	49160			
			Optochin	99822			
102	3/31/20	E. Bilhuber, Inc.	Santyl	61255	59.32		59.32
103	3/31/20	E. Bilhuber, Inc.	Bromural	61165	209.26	100.00	309.26
120	6/2/20	Abbott Laboratories	Anesthesin	55744	176.23	100.00	276.23
124	6/11/20	McKesson & Robbins	Euquinine	54088	15.12	100.00	115.12
125	6/16/20	Upjohn Co.	Digipuratum	73012	18.95	100.00	118.95
127	5/14/20	Toch Brothers	Metol	57145	31.48	100.00	131.48
131	7/15/20	Bausch & Lomb Optical Co.	Planar	68570		100.00	100.00
132	7/15/20	do. do.	Protar	68571	1,410.87	100.00	1,510.87
133	7/15/20	do. do.	Amatar	85306		100.00	100.00
134	7/15/20	do. do.	Tessar	68572	3,304.13	100.00	3,404.13
135	7/15/20	do. do.	Katral	93581	6.40	100.00	106.40

License No.	Date of License	Name of Licensee	Name of Trademark	Trademark No.	Royalty	License Fees	Total
136	7/15/20	do. do.	Triotar	94409		$100.00	$100.00
147	7/29/20	Bausch & Lomb Optical Co.	Rodinal	61920		100.00	100.00
152	9/7/20	do. do.	Distar	106131		100.00	100.00
267	Never Executed	Amer. Solder & Flux Co.	Tinol	63910	—	—	—
301	10/1/21	Novocol Chem. Mfg. Co.	Bromural	61165	8.68	100.00	108.68
306	10/17/21	Amer. Lysoform Co.	Lysoform	35979		100.00	100.00
310	11/1/21	Amer. Solder & Flux Co.	Tinol	63910	96.86	100.00	196.86
315	11/21/21	Merck & Co.	Stypticin	27388	158.15	100.00	258.15
316	11/21/21	do. do.	Dionin	32737	214.59	100.00	314.59
Carbic Color & Chem. Co.	318	11/15/21	Validol	(29457 (54087	645.65	100.00	745.65
326	12/13/21	Novocol Chem. Mfg. Co.	Validol	(29457 (54087	9.51	100.00	109.51
340	2/1/22	Roessler & Hasslacher Chem Co.	Trisalyt	81507	500.00	—	500.00
375	11/1/22	Lysoform Corp.	Lysoform	35979		100.00	100.00
378	11/28/22	Rhodia, Inc.	Metol	57145		100.00	100.00
					$8,596.76	$2,600.00	$11,196.76

DEFENDANT'S EXHIBIT No. 103.

STATEMENT OF INCOME RECEIVED ON ARSPHENAMINE PATENTS FROM APRIL 10, 1919, TO DEC. 31, 1922, DIVIDED AS BETWEEN PATENTS FORMERLY LICENSED BY THE FEDERAL TRADE COMMISSION AND PATENTS LICENSED BY THE CHEMICAL FOUNDATION, INC.

	Ars-phenamine	Neo Ars-phenamine	Total
Licensed by the Federal Trade Commission.			
Dermatological Research Labs., assigned to Abbott Labs., Inc.,	$4,388.46	$27,078.14	$31,466.60
Licensed by The Chemical Foundation, Inc.			
Abbott Labs., Inc.	$ 300.00	100.00	
E. R. Squibb & Son	2545.91	216.70	
Mallinckrodt Chemical Co.	400.00	100.00	
Powers-Weightman-Rosengarten Co.	400.00	1,323.93	
Empire State Chemical Co.	400.00	100.00	
F. J. Lackenback (infringement)	120.00	30.00	
	$4,165.91	$1,870.63	$6,036.54
Total	$8,554.37	$28,948.77	$37,503.14

		Percentage
From the above it will be seen that the amounts received for Arsphenamine and Neo-Arsphenamine from licensees formerly licensed by the Federal Trade Commission was:	$31,466.60	83.9%
and the income from the same products originally licensed by The Chemical Foundation, Incorporated, amounted to	6,036.54	16.1%
making a total of	$37,503.14	100. %

DEFENDANT'S EXHIBIT No. 104.

THE CHEMICAL FOUNDATION, INC.

STATEMENT SHOWING EARNINGS ON THE 57 PRE-WAR CONTRACTS ACQUIRED FROM THE A. P. C. FROM APRIL 10, 1919, TO DECEMBER 31, 1922, WITH DATA AND RESULTS IN RESPECT TO SUCH EARNING, AND EXPENSES IN CONNECTION THEREWITH.

Earning by Chemical Foundation Direct		$2442.06
Average annual gross earnings for the 57 contracts		651.22
Average annual gross income for each of the 57 contracts		11.42
Deduct:		
Proportion of expenses applicable to each contract	$20.88	
6% interest on investment	4.12	
Amortization	3.74	28.74
Average annual net *Loss* for each of the 57 contracts, exclusive of educational literature		17.32

The above income was earned on 8 of these contracts, and the remaining 49 or 86% of the contracts acquired have never earned anything.

There had expired 36 of these contracts prior to December 31, 1922.

DEFENDANT'S EXHIBIT No. 105.

THE CHEMICAL FOUNDATION, INC.

STATEMENT SHOWING EARNINGS ON THE 6475 PROPERTIES ACQUIRED FROM THE ALIEN PROPERTY CUSTODIAN FROM APRIL 10, 1919, TO DECEMBER 31, 1922, WITH DATA AND RESULTS IN RESPECT TO THE VARIOUS SOURCES OF INCOME AND EXPENSES THEREON.

Earnings by the Chemical Foundation Direct.			
Patents:			
Domestic Manufactured Products	$296,213.41		
Imported Products	365,492.87		
		$661,706.28	
Contracts		2,442.06	
Trademarks		11,196.76	
Total Income from properties acquired from the Alien Property Custodian			$675,345.10
Average annual gross income on the 6475 properties acquired from A. P. C.			181,436.04
Average annual gross income for each of the 6475 properties amounts to			28.02
Deduct:			
Proportion of expenses applicable to properties acquired from A. P. C. being 99.9 per cent of total expense		20.88	
Interest on investment		4.12	
Amortization of Properties		3.74	
			28.74
Average annual net *Loss* for each property exclusive of educational expense			.72

DEFENDANT'S EXHIBIT No. 106.

EXHIBIT A, Schedule 3.

SUMMARY SHOWING THE DIVISION OF EARNINGS FROM PATENTS AS BETWEEN PRODUCT AND PROCESS PATENTS APRIL 10, 1919, TO DECEMBER 31, 1922

Manufactured Product

Number of Patents		Royalties	License Fees	Imports	Miscellaneous	Total
	Product Patents					
140	Earnings from U. S. Licensees and from Imports	$194,059.01	$16,928.92	$131,449.39	$2,167.42	$344,604.74
120	License fees only; Product not manufactured		6,243.20			6,243.20
77	Imports on patents not licensed to U. S. Mfgrs.			233,694.42		233,694.42
337		$194,059.01	$23,172.12	$365,143.81	$2,167.42	$584,542.36
	Process Patents					
117	Earnings from U. S. Licensees and from Imports	$ 72,350.99	$ 2,697.60	$ 199.06	$ 285.98	$ 75,533.63
37	License Fees only		1,630.29			1,630.29
154		$ 72,350.99	$ 4,327.89	$ 199.06	$ 285.98	$ 77,163.92
491	Grand Total	$266,410.00	$27,500.01	$365,342.87	$2,453.40	$661,706.28

Note: In addition to above 4 product patents were licensed on which no income was received, the fee being waived in the case of one and substitution of patents made in the case of the other three.

Of the above income producing patents 46 had expired at Dec. 31, 1922, the earnings on which were $115,417.79, or approximately 18% of the entire income.

EXHIBIT A, Schedule 3, Part 1.

THE CHEMICAL FOUNDATION, INC.
DETAILED STATEMENT OF EARNINGS FROM PRODUCT PATENTS

Patent Number	Product	Royalty	Manufactured License Fee	Imports	Miscellaneous	Total
711377	Chemical		$33.33			$33.33
715662	Dye			$306.96		306.96
731670	Dye			71.43		71.43
733280	Dye	$157.78	200.00	733.13		1,090.91
734866	Dye			1,378.83		1,378.83
736812	Apparatus	61.25				61.25
739145	Dye	2,784.96		12,190.03		14,974.99
739579	Dye	922.99		21,950.70		22,873.69
739920	Chemical	19.09	1.20			20.29
741029	Dye			83.12		83.12
749913	Dye			424.30		424.30
752562	Dye	316.36	100.00			416.36
753659	Dye	922.99		8,251.70		9,174.69
754768	Dye			496.08		496.08
757109	Dye	768.99	200.00	44.46	$81.84	1,095.29
758775	Chemical	19.09	.76			19.85
763756	Dye	192.77	100.00			292.77
767259	Dye			63.81		63.81
770177	Dye	4,465.84	266.68			4,732.52
774224	Drug		100.00	107.07		207.07
778476	Dye	4,572.72	266.66			4,839.38
778670	Chemical	7,641.95	100.00			7,741.95
782129	Chemical		7.14			7.14
787859	Dye	6,270.54	450.02	1,421.41	86.94	8,228.91
791869	Dye			.97		.97
792379	Chemical	19.09	.76			19.85
793610	Chemical	3,460.24	166.69	365.83	71.49	4,064.25
794201	Apparatus	70.16	33.34			103.50
794654	Apparatus		8.33			8.33
796393	Dye	2,549.21	266.66	19,809.45		22,625.32
801268	Chemical		7.14			7.14
804021	Chemical	19.09	.76			19.85
805143	Dye	113.72	50.00	199.92		363.64
806053	Dye			286.59		286.59
807422	Dye	8,452.72	366.66			8,819.38
807695	Apparatus	70.17	33.33			103.50
812554	Drug	994.67	500.00			1,494.67
814137	Dye			211.53		211.53
815438	Chemical		7.14			7.14
815653	Drug	807.80	100.00			907.80
818336	Dye	1,607.75				1,607.75
818980	Dye	8,308.37	100.00			8,408.37
818992	Dye	4,436.94	366.66	4,832.46		9,636.06
819348	Dye		50.00	726.83		776.83
819596	Apparatus		7.14			7.14
822246	Chemical		7.14			7.14
		$60,027.25	$3,897.54	$73,956.61	$240.27	$138,121.67

EXHIBIT A, Schedule 3, Part 1, Sheet 2.

Patent Number	Product	Royalty	Manufactured License Fee	Imports	Miscellaneous	Total
Brought forward		$60,027.25	$3,897.54	$73,956.61	$240.27	$138,121.67
834209	Apparatus	5,350.00	200.00			5,550.00
837128	Dye	30.25	100.00			130.25
837775	Dye			23.71		23.71
837840	Dye			5,517.76		5,517.76
844804	Dye	113.73	50.00	58.16		221.89
850827	Chemical		50.00			50.00
856811	Dye			25,798.52		25,798.52
860575	Dye			644.94		644.94
862858	Drug	59.32	100.00			159.32
863397	Dye			2,390.01		2,390.01
867305	Dye			8,288.11		8,288.11
868204	Drug		100.00	659.87		759.87
872585	Dye			218.64		218.64
872815	Dye			2,631.72		2,631.72
873798	Dye			1.71		1.71
873870	Optics		33.34			33.34
873871	Optics		33.33			33.33
873896	Optics		33.34			33.34
874649	Dye			455.96		455.96
876190	Dye	387.54		1,290.65		1,678.19
876679	Chemical	743.88				743.88
877034	Apparatus		8.34			8.34
878964	Dye	1,567.83	500.00		142.61	2,210.44
879552	Dye			4,129.31		4,129.31
880292	Dye			104.10		104.10
880293	Dye			20.99		20.99
884920	Chemical	19.09	.76			19.85
886985	Dye			92.31		92.31
888837	Dye			207.41		207.41
892166	Apparatus	321.24	100.00			421.24
892455	Dye	5,361.92	200.00			5,561.92
892897	Dye			29,616.45		29,616.45
895045	Optics	344.67	33.34			378.01
895313	Chemical	89.26	34.09			123.35
896807	Drug	691.85	50.00			741.85
899503	Apparatus		7.14			7.14
903284	Dye			4,326.96		4,326.96
904809	Dye	110.85	100.00			210.85
906367	Dye	4,190.88	183.33	216.85		4,591.06
911801	Chemical	19.09	.76			19.85
912182	Dye			125.74		125.74
914518	Drug	217.94	200.00			417.94
916029	Dye			13,346.97		13,346.97
916030	Dye			8,616.02		8,616.02
918589	Chemical	19.09	.76			19.85
918818	Chemical		100.00			100.00
918920	Dye			673.38		673.38
919572	Dye		120.00	13.20		133.20
		$79,665.68	$6,236.07	$183,426.06	$382.88	$269,710.69

EXHIBIT A, Schedule 3, Part 1, Sheet 3

Patent Number	Product	Royalty	Manufactured License Fee	Imports	Miscellaneous	Total
Brought forward		$79,665.68	$6,236.07	$183,426.06	$382.88	$269,710.69
922282	Dye		100.00	1.50		101.50
922995	Drug	117.06	100.00	624.20		841.26
924664	Apparatus	2,116.94				2,116.94
925917	Dye			1,113.43		1,113.43
926702	Chemical		7.14			7.14
928494	Apparatus		7.14			7.14
931598	Dye		120.00			120.00
932266	Dye			156.50		156.50
932334	Dye			2,705.70		2,705.70
934579	Optics		33.33			33.33
940895	Optics		100.00			100.00
941088	Dye			162.60		162.60
941768	Chemical	19.09	.76			19.85
943163	Drug	691.86	50.00			741.86
943578	Drug	94.76	100.00			194.76
943717	Dye			33.55		33.55
948204	Dye			1,609.78		1,609.78
955068	Dye	1,580.73	100.00	291.62		1,972.35
955105	Dye			39,381.38		39,381.38
955410	Dye			115.20		115.20
956348	Dye	62.69	220.00	4,100.34		4,383.03
957683	Dye			340.94		340.94
958325	Dye			1,617.80		1,617.80
958912	Dye		100.00			100.00
959617	Dye			36.25		36.25
961048	Dye			28.78		28.78
961612	Dye			3,267.83		3,267.83
962920	Optics		100.00			100.00
963813	Dye			2,434.37		2,434.37
965170	Dye			2,777.94		2,777.94
965485	Apparatus	174.12	50.00			224.12
966092	Dye		220.00	7,836.85		8,056.85
968697	Dye			5,733.34		5,733.34
970340	Dye			14,945.67		14,945.67
970878	Dye			4,430.53		4,430.53
971149	Chemical	19.09	.76			19.85
973611	Apparatus		8.33			8.33
978865	Dye			24.00		24.00
981727	Chemical	19.09	.76			19.85
982022	Apparatus	174.13	50.00			224.13
982050	Dye			10.60		10.60
986148	Drugs	1,022.11	550.00		30.00	1,602.11
987362	Dye			17.61		17.61
988720	Optics		33.33			33.33
995113	Apparatus	1,610.71	20.00			1,630.71
998091	Optics	1,323.48	100.00			1,423.48
999230	Dye			500.68		500.68
999439	Dye			648.72		648.72
1003268	Dye	4,190.86	133.33	33,719.09		38,043.28
		$92,882.40	$8,540.95	$312,092.86	$412.88	$413,929.09

EXHIBIT A, Schedule 3, Part 1, Sheet 4.

Patent Number	Product	Royalty	Manufactured License Fee	Imports	Miscellaneous	Total
Brought forward		$92,882.40	$8,540.95	$312,092.86	$412.88	$413,929.09
1005176	Drug	1,654.64	400.00			2,054.64
1008906	Dye			4,772.36		4,772.36
1011068	Dye			11,280.80		11,280.80
1014539	Dye				16.46	16.46
1016369	Optical		50.00			50.00
1018433	Dye			451.29		451.29
1018990	Chemical	19.09	.76			19.85
1019576	Dye			75.00		75.00
1019582	Apparatus		8.34			8.34
1020756	Dye			10.45		10.45
1024993	Drug		100.00			100.00
1025138	Dye			15,713.33		15,713.33
1025174	Dye			1,727.17		1,727.17
1025195	Dye			14.28		14.28
1025766	Optics	344.67	33.33			378.00
1028366	Chemical	19.09	.76			19.85
1031823	Dye			42.50		42.50
1034853	Dye	250.41	200.00	1,462.17		1,912.58
1034898	Dye			428.40		428.40
1035756	Drug		100.00			100.00
1035873	Chemical	19.09	.76			19.85
1036241	Chemical	470.59	50.00	2,113.50		2,634.09
1037563	Apparatus	96.35	100.00			196.35
1039851	Chemical	19.09	.76			19.85
1039852	Chemical	19.09	.76			19.85
1041457	Apparatus		100.00			100.00
1042356	Dye	250.41	100.00	32.82		383.23
1042679	Dye			22.05		22.05
1043468	Dye	2,057.11	33.34			2,090.45
1044673	Dye			73.42		73.42
1044674	Dye			432.89		432.89
1045759	Drug	1,308.71	160.00			1,468.71
1048073	Apparatus	50.00	50.00			100.00
1049860	Apparatus	50.00	50.00			100.00
1054888	Dye			212.11		212.11
1054901	Chemical	19.09	.76			19.85
1055287	Dye		50.00			50.00
1055331	Chemical	19.09	.76			19.85
1055701	Dye			2,003.76		2,003.76
1057154	Apparatus	2,116.93				2,116.93
1058653	Chemical	19.09	.76			19.85
1059817	Chemical	19.09	.76			19.85
1059983	Chemical	770.65	366.68			1,137.33
1061139	Drug		100.00			100.00
1061781	Dye	2,146.46	33.33	1,823.73		4,003.52
1062203	Drug	62.66	100.00	531.81		694.47
1062258	Apparatus		100.00			100.00
1063004	Chemical	245.97	100.00			345.97
1068966	Chemical	19.08	.76			19.84
		$104,948.85	$10,933.57	$355,316.70	$429.34	$471,628.46

EXHIBIT A, Schedule 3, Part 1, Sheet 5

Patent Number	Product	Manufactured Royalty	License Fee	Imports	Miscellaneous	Total
Brought forward		$104,948.85	$10,933.57	$355,316.70	$429.34	$471,628.46
1068967	Chemical	19.08	.76			19.84
1068968	Chemical	19.08	.76			19.84
1068969	Chemical	19.08	.76			19.84
1070541	Dye	3,782.74	133.33	352.62		4,268.69
1073789	Optics	344.68	33.33			378.01
1073823	Chemical	19.08	.76			19.84
1073870	Chemical	19.08	.76			19.84
1073904	Dye			427.12		427.12
1073951	Dye			821.94		821.94
1076756	Dye			113.01		113.01
1078125	Apparatus	1,524.38			1,370.64	2,895.02
1078135	Drug	770.66	366.66			1,137.32
1078423	Chemical	19.08	.76			19.84
1079415	Dye			165.75		165.75
1081592	Drug	15,123.15	1,216.68		30.00	16,369.83
1081897	Drug	1,022.12	550.00		30.00	1,602.12
1082719	Dye			896.08	240.90	1,136.98
1086881	Drug	1,290.53	60.00			1,350.53
1090874	Chemical	19.08	.76			19.84
1091881	Drug	2,479.30	249.98			2,729.28
1092816	Apparatus		100.00			100.00
1095780	Dye			80.25		80.25
1099710	Apparatus		100.00			100.00
1100877	Dye			40.12		40.12
1102716	Chemical	19.08	.76			19.84
1105501	Dye	217.26	25.00			242.26
1105554	Dye	802.82	100.00	360.85		1,263.67
1106970	Dye	470.60	50.00			520.60
1107107	Tanning		200.00			200.00
1113468	Dye		12.50			12.50
1116398	Drug	3,168.03	550.00		30.00	3,748.03
1121026	Dye	250.42	112.50			362.92
RE13848	Drug	14,217.73	400.00		30.00	14,647.73
1122011	Apparatus		100.00			100.00
1122564	Dye	250.42	212.50			462.92
1123430	Dye		20.00			20.00
1125311	Chemical		12.50			12.50
1126475	Dye		16.67			16.67
1126656	Dye		12.50			12.50
1127603	Drug	2,479.30	250.00			2,729.30
1128369	Chemical		12.50			12.50
1128370	Chemical		12.50			12.50
1128371	Dye		20.00			20.00
1129559	Chemical	19.08	.76			19.84
1129574	Dye		116.67			116.67
1129575	Dye		16.67			16.67
1130785	Apparatus	1,610.71	20.00			1,630.71
1131516	Dye		14.29			14.29
1138670	Dye		14.29			14.29
		$154,925.42	$16,051.48	$358,574.44	$2,160.88	$531,712.22

EXHIBIT A, Schedule 3, Part 1, Sheet 6.

Patent Number	Product	Manufactured Royalty	License Fees	Imports	Miscellaneous	Total
Brought forward		$154,925.42	$16,051.48	$358,574.44	$2,160.88	$531,712.22
1139540	Dye		14.29			14.29
1141148	Dye		36.67			36 67
1141266	Chemical	600.00	100.00			700.00
1144181	Dye	217.26	25.00			242.26
1144325	Dye	217.26	25.00			242.26
1145072	Dye		33.34			33.34
1145934	Dye		50.00			50.00
1148570	Chemical	19.08	.76			19.84
1149231	Dye		20.00			20.00
1150825	Dye		100.00	587.45		687.45
1150863	Dye	259.38	150.00	739.83		1,149.21
1152197	Chemical	19.08	.76			19.84
1154826	Dye		20.00			20.00
1155765	Dye		33.34			33.34
1157257	Optics		50.00			50.00
1159233	Optics		33.33			33.33
1159865	Chemical	19.08	.76			19.84
1160471	Dye		20.00			20.00
1161200	Chemical	25.00	100.00			125.00
1162496	Dye		50.00			50.00
1164987	Apparatus	5,179.71	900.00			6,079.71
1165531	Dye		120.00			120.00
1166346	Dye		20.00			20.00
1169404	Dye		25.00			25.00
1169731	Optics		100.00			100.00
1170247	Apparatus		100.00			100.00
1172061	Dye		20.00			20.00
1173077	Dye		12.50			12.50
1173241	Apparatus		8.33			8.33
1173532	Chemical	19.08	.76			19.84
1180365	Apparatus		8.34			8.34
1180815	Apparatus		108.33			108.33
1180985	Dye		12.50			12.50
1181485	Drug	1,290.53	60.00			1,350.53
1183831	Dye		20.00			20.00
1185637	Drug	1.86	100.00			101.86
1186339	Apparatus		108.33			108.33
1186686	Apparatus		108.33			108.33
1188376	Chemical		50.00			50.00
1188421	Dye		20.00			20.00
1188544	Chemical		12.50			12.50
1188545	Dye		12.50			12.50
1193566	Dye	250.42	112.50	1.60		364.52
1193829	Dye		33.33			33.33
1196127	Dye		64.28			64.28
1197315	Apparatus	3,842.26	150.00			3,992.26
1197462	Drug	1,290.53	60.00			1,350.53
1197632	Dye		100.00	87.27		187.27
1197633	Dye		33.33			33.33
		$168,175.95	$19,395.59	$359,990.59	$2,160.88	$549,723.01

EXHIBIT A, Schedule 3, Part 1, Sheet 7

Patent Number	Product	Manufactured Royalty	License Fees	Imports	Miscellaneous	Total
Brought forward		$168,175.95	$19,395.59	$359,990.59	$2,160.88	$549,723.01
1199697	Dye		20.00			20.00
1200055	Dye		20.00			20.00
1201607	Apparatus	19.08	.76			19.84
1201968	Dye		25.00			25.00
1202260	Dye		25.00			25.00
1206232	Dye	250.42	120.00			370.42
1207762	Dye		25.00			25.00
1207981	Dye		50.00			50.00
1207982	Dye		50.00			50.00
1209154	Dye		12.50			12.50
1209580	Dye		16.66			16.66
1211181	Chemical	19.08	.76			19.84
1211394	Chemical	19.08	.76			19.84
1213075	Dye		20.00			20.00
1215957	Chemical	19.08	.76			19.84
1216059	Chemical	19.08	.76			19.84
1216134	Dye		100.00			100.00
1217027	Apparatus		50.00			50.00
1217028	Apparatus		100.00			100.00
1217862	Drug		100.00			100.00
1218423	Apparatus		100.00			100.00
1219166	Dye		12.50			12.50
1219954	Dye		33.33			33.33
1225263	Apparatus	19.08	.76			19.84
1228061	Apparatus		8.33			8.33
1231933	Apparatus		8.33			8.33
1232551	Dye	10,604.88	700.02		3.27	11,308.17
1232552	Dye	10,568.90	699.99		3.27	11,272.16
1237405	Tanning	1,577.78	148.33			1,726.11
1238932	Chemical		50.00			50.00
1243170	Dye			1,302.80		1,302.80
1243171	Dye		116.66	3,850.42		3,967.08
1251368	Dye		20.00			20.00
1254364	Tanning	102.92	75.00			177.92
1255739	Dye		50.00			50.00
1255740	Dye		50.00			50.00
1256930	Apparatus		250.00			250.00
1264604	Dye		33.33			33.33
1266896	Dye		14.28			14.28
1278229	Tanning	2,002.83	98.33			2,101.16
1280648	Dye		14.28			14.28
1281494	Tanning		200.00			200.00
1285726	Dye		14.28			14.28
1285727	Dye		50.00			50.00
1289280	Tanning		200.00			200.00
1319852	Dye		12.50			12.50
1336759	Tanning	660.85	78.32			739.17
		$194,059.01	$23,172.12	$365,143.81	$2,167.42	$584,542.36

EXHIBIT A, Schedule 3, Part 2

DETAILED STATEMENT OF EARNINGS FROM PROCESS PATENTS

Patent Number	Product	Manufactured Royalty	License Fees	Imports	Miscellaneous	Total
725890	Chemical		$7.72			$7.72
754474	Chemical	$19.09	.76			19.85
770940	Chemical		7.69			7.69
790601	Chemical		7.69			7.69
795755	Chemical		183.34		$71.49	254.83
797961	Chemical	19.09	.76			19.85
797962	Chemical	19.09	.76			19.85
801483	Chemical		7.69			7.69
801485	Chemical		7.69			7.69
802793	Chemical		7.69			7.69
814917	Chemical	19.09	.76			19.85
841612	Apparatus		8.34			8.34
844914	Dye	922.99				922.99
850392	Chemical	19.09	.76			19.85
861014	Chemical		83.33		71.49	154.82
868383	Apparatus	1,610.70	20.00			1,630.70
884919	Chemical	19.09	.76			19.85
885566	Chemical	3,460.24	166.66		71.50	3,698.40
885567	Chemical	3,460.25	266.65		71.50	3,798.40
903047	Chemical		7.69			7.69
904043	Chemical		7.18			7.18
907941	Chemical		7.69			7.69
922003	Chemical	19.09	.76			19.85
923012	Chemical	19.09	.76			19.85
955970	Apparatus		7.14			7.14
957843	Chemical	19.09	.76			19.85
964415	Chemical	19.09	.76			19.85
965483	Apparatus	19.09	.76			19.85
970883	Chemical	19.09	.76			19.85
971206	Chemical	19.09	.76			19.85
971501	Chemical	19.09	.76			19.85
978889	Chemical	2,116.93				2,116.93
984605	Chemical	19.09	.76			19.85
984925	Chemical	19.09	.76			19.85
989651	Chemical		7.69			7.69
990191	Chemical	19.09	.76			19.85
992947	Dye	1,020.04	125.00	$65.00		1,210.04
993144	Chemical	19.09	.76			19.85
994095	Chemical	19.09	.76			19.85
994437	Chemical		7.69			7.69
999025	Chemical	19.09	.76			19.85
1000732	Chemical	19.09	.76			19.85
1006206	Chemical	19.09	.76			19.85
1008927	Chemical	19.09	.76			19.85
1011014	Chemical	19.09	.76			19.85
1015566	Chemical	19.09	.76			19.85
Carried forward		$13,068.40	$963.57	$65.00	$285.98	$14,382.95

EXHIBIT A, Schedule 3, Part 2, Sheet 2

Patent Number	Product	Manufactured Royalty	License Fees	Imports	Miscellaneous	Total
Brought Forward		$13,068.40	$963.57	$65.00	$285.98	$14,382.95
1015800	Chemical	19.09	.76			19.85
1022351	Chemical	19.09	.76			19.85
1029528	Chemical	19.09	.76			19.85
1030334	Chemical		7.69			7.69
1040218	Chemical	19.09	.76			19.85
1043798	Chemical	19.09	.76			19.85
1053396	Chemical	2,116.93				2,116.93
1053951	Chemical	19.09	.76			19.85
1053952	Chemical	19.09	.76			19.85
1056548	Apparatus	2,116.93				2,116.93
1058904	Drug		100.00			100.00
1059818	Chemical	19.08	.76			19.84
1061725	Chemical	19.08	.76			19.84
1063173	Dye	27,505.95	100.00			27,605.95
1066758	Chemical		7.69			7.69
1070138	Chemical	19.08	.76			19.84
1075085	Chemical	19.08	.76			19.84
1075171	Drug	2,158.68	160.00			2,318.68
1077034	Chemical	19.08	.76			19.84
1078686	Chemical	19.08	.76			19.84
1079705	Chemical	19.08	.76			19.84
1083585	Chemical	19.08	.76			19.84
1083703	Chemical	19.08	.76			19.84
1083903	Chemical	1,610.71	20.00			1,630.71
1089185	Chemical	19.08	.76			19.84
1094194	Chemical	19.08	.76			19.84
1096392	Chemical	19.08	.76			19.84
1096393	Chemical	19.08	.76			19.84
1097406	Chemical	4,477.15	400.00			4,877.15
1098139	Chemical	19.08	.76			19.84
1099108	Dye	250.42	200.00			450.42
1101111	Chemical	967.42	200.00			1,167.42
1101424	Chemical	19.08	.76			19.84
1104943	Chemical	3,707.93				3,707.93
1105378	Chemical		7.69			7.69
1105447	Dye		100.00	116.56		216.56
1107926	Chemical	19.08	.76			19.84
1109447	Chemical	19.08	.76			19.84
1109448	Chemical	19.08	.76			19.84
1113096	Chemical	19.08	.76			19.84
1113097	Chemical	19.08	.76			19.84
1115776	Chemical	19.08	.76			19.84
1118595	Chemical	19.08	.76			19.84
1118628	Chemical	19.08	.76			19.84
1119534	Chemical	19.08	.76			19.84
1119546	Chemical		50.00			50.00
1124776	Chemical		12.50			12.50
1126371	Chemical	19.08	.76			19.84
1127027	Dye	250.42	100.00			350.42
Carried forward		$58,841.57	$2,453.46	$181.56	$285.98	$61,762.57

EXHIBIT A, Schedule 3, Part 2, Sheet 3

Patent Number	Product	Royalty	Manufactured License Fees	Imports	Miscellaneous	Total
Brought forward		$58,841.57	$2,453.46	$181.56	$285.98	$61,762.57
1128804	Chemical	19.08	.76			19.84
1128843	Chemical	19.08	.76			19.84
1133087	Chemical	19.08	.76			19.84
1133108	Tanning	102.89	75.00			177.89
1134416	Chemical	19.08	.76			19.84
1144730	Chemical	19.08	.76			19.84
1149510	Chemical	19.08	.76			19.84
1150152	Chemical		100.00			100.00
1152098	Chemical		100.00			100.00
1152196	Chemical	19.08	.76			19.84
1152930	Chemical	19.08	.76			19.84
1157253	Chemical	19.08	.76			19.84
1158167	Chemical	19.08	.76			19.84
1169267	Dye	250.42	100.00			350.42
1169817	Chemical	19.08	.76			19.84
1169895	Apparatus	3,842.24	150.01			3,992.25
1172863	Chemical	19.08	.76			19.84
1172908	Chemical	19.08	.76			19.84
1172925	Chemical	19.08	.76			19.84
1173550	Chemical		33.34			33.34
1175091	Chemical		50.00			50.00
1175490	Chemical		50.00			50.00
1175693	Chemical	19.08	.76			19.84
1178440	Chemical	19.08	.76			19.84
1181431	Chemical		7.14			7.14
1183748	Dye	33.98	100.00	17.50		151.48
1188191	Chemical	19.08	.76			19.84
1191480	Tanning	2,002.95	98.37			2,101.32
1200805	Chemical	19.08	.76			19.84
1201850	Chemical		33.34			33.34
1202995	Chemical	19.08	.76			19.84
1205578	Chemical	1,444.44	100.00			1,544.44
1207706	Chemical	19.08	.76			19.84
1207707	Chemical	19.08	.76			19.84
1207708	Chemical	19.08	.76			19.84
1207802	Chemical		133.33			133.33
1208134	Apparatus		7.14			7.14
1212504	Chemical	19.08	.76			19.84
1216612	Tanning	2,002.81	98.33			2,101.14
1225264	Chemical	19.08	.76			19.84
1225755	Chemical	19.08	.76			19.84
1228879	Chemical		7.14			7.14
1232620	Tanning	1,570.26	128.32			1,698.58
1239867	Chemical		33.33			33.33
1243382	Chemical	19.08	.76			19.84
Carried forward		$70,587.64	$3,878.01	$199.06	$285.98	$74,950.69

EXHIBIT A, Schedule 3, Part 2, Sheet 4

Patent Number	Product	Manufactured Royalty	License Fees	Imports	Miscellaneous	Total
Brought forward		$70,587.64	$3,878.01	$199.06	$285.98	$74,950.69
1244580	Chemical	19.08	.76			19.84
1256875	Chemical	19.08	.76			19.84
1256929	Chemical		250.00			250.00
1261900	Chemical	19.08	.76			19.84
1261987	Chemical	1,610.71	20.00			1,630.71
1274503	Chemical		33.33			33.33
1278580	Chemical	19.08	.76			19.84
1281775	Apparatus		7.14			7.14
1286650	Chemical	19.08	.76			19.84
1292019	Chemical		33.33			33.33
1301151	Chemical	19.08	.76			19.84
1314642	Chemical		100.00			100.00
1322291	Chemical	19.08	.76			19.84
1330772	Chemical	19.08	.76			19.84
		$72,350.99	$4,327.89	$199.06	$285.98	$77,163.92

DEFENDANT'S EXHIBIT No. 107.

EXHIBIT A, Schedule 1.

STATEMENT OF EARNINGS FROM ROYALTIES AND LICENSE FEES BY INDIVIDUAL PATENTS FROM APRIL 10, 1919, to December 31, 1922

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fee	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
711377	Chemical		$ 33.33				$ 33.33
715662	Dye			$ 306.96			306.96
725890	Drug		7.72				7.72
731670	Dye			71.43			71.43
733280	Dye	$ 157.78	200.00	733.13			1,090.91
734866	Dye			1,378.83			1,378.83
736812	Apparatus	61.25					61.25
739145	Dye	2,784.96		12,110.43	$ 79.60		14,974.99
739579	Dye	922.99		21,941.95	8.75		22,873.69
739920	Chemical	19.09	1.20				20.29
741029	Dye			83.12			83.12
749913	Dye			12.80	411.50		424.30
752562	Dye	316.36	100.00				416.36
753659	Dye	922.99		2,898.70	5,353.00		9,174.69
754474	Chemical	19.09	.76				19.85
754768	Dye			354.18	141.90		496.08
757109	Dye	768.99	200.00	30.71	13.75	$ 81.84	1,095.29
758775	Chemical	19.09	.76				19.85
763756	Dye	192.77	100.00				292.77
767259	Dye			63.81			63.81
770177	Dye	4,465.84	266.68				4,732.52
770940	Chemical		7.69				7.69
774224	Chemical		100.00		107.07		207.07
778476	Dye	4,572.72	266.66				4,839.38
778670	Chemical	7,641.95	100.00				7,741.95
782129	Chemical		7.14				7.14
787859	Dye	6,270.54	450.02		1,421.41	86.94	8,228.91
790601	Chemical		7.69				7.69
791869	Dye			.97			.97
792379	Chemical	19.09	.76				19.85
793610	Chemical	3,460.24	166.69		365.83	71.49	4,064.25
794201	Chemical	70.16	33.34				103.50
794654	Apparatus		8.33				8.33
795755	Chemical		183.34			71.49	254.83
796393	Dye	2,549.21	266.66	9,888.43	9,921.02		22,625.32
797961	Chemical	19.09	.76				19.85
797962	Chemical	19.09	.76				19.85
801268	Chemical		7.14				7.14
801483	Chemical		7.69				7.69
801485	Chemical		7.69				7.69
802793	Chemical		7.69				7.69
804021	Chemical	19.09	.76				19.85
805143	Dye	113.72	50.00		199.92		363.64
806053	Dye			286.59			286.59
807422	Dye	8,452.72	366.66				8,819.38
807695	Chemical	70.17	33.33				103.50
(Carried forward)		$43,928.99	$2,991.25	$50,162.04	$18,023.75	$311.76	$115,417.79

EXHIBIT A, Schedule 1. —2.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	License Fee	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought forward)		$43,928.99	$2,991.25	$50,162.04	$18,023.75	$311.76	$115,417.79
812554	Chemical	994.67	500.00				1,494.67
814137	Dye			126.58	84.95		211.53
814917	Chemical	19.09	.76				19.85
815438	Chemical		7.14				7.14
815653	Chemical	807.80	100.00				907.80
818336	Dye	1,607.75					1,607.75
818980	Dye	8,308.37	100.00				8,408.37
818992	Dye	4,436.94	366.66	3,948.67	883.79		9,636.06
819348	Dye		50.00	280.78	446.05		776.83
819596	Apparatus		7.14				7.14
822246	Chemical		7.14				7.14
834209	Drug	5,350.00	200.00				5,550.00
837128	Dye	30.25	100.00				130.25
837775	Dye			23.71			23.71
837840	Dye			3,548.89	1,968.87		5,517.76
841612	Apparatus		8.34				8.34
844804	Dye	113.73	50.00		58.16		221.89
844914	Dye	922.99					922.99
850394	Chemical	19.09	.76				19.85
850827	Chemical		50.00				50.00
856811	Dye			17,584.44	8,214.08		25,798.52
860575	Dye			51.44	593.50		644.94
861014	Chemical		83.33			71.49	154.82
862858	Chemical	59.32	100.00				159.32
863397	Dye			533.63	1,856.38		2,390.01
867305	Dye			2,463.26	5,824.85		8,288.11
868204	Chemical		100.00		659.87		759.87
868383	Apparatus	1,610.70	20.00				1,630.70
872585	Dye			88.01	130.63		218.64
872815	Dye			633.72	1,998.00		2,631.72
873798	Dye			1.71			1.71
873870	Optics		33.34				33.34
873871	Optics		33.33				33.33
873896	Optics		33.34				33.34
874649	Dye			3.81	452.15		455.96
876190	Dye	387.54		533.93	756.72		1,678.19
876679	Chemical	743.88					743.88
877034	Apparatus		8.34				8.34
878964	Dye	1,567.83	500.00			142.61	2,210.44
879552	Dye			2,786.20	1,343.11		4,129.31
880292	Dye				104.10		104.10
880293	Dye			.99	20.00		20.99
884919	Chemical	19.09	.76				19.85
884920	Chemical	19.09	.76				19.85
885566	Chemical	3,460.24	166.66			71.50	3,698.40
885567	Chemical	3,460.25	266.65			71.50	3,798.40
886985	Dye			92.31			92.31
888837	Dye			172.41	35.00		207.41
892166	Apparatus	321.24	100.00				421.24
892455	Dye	5,361.92	200.00				5,561.92
892897	Dye			14,055.30	15,561.15		29,616.45
895045	Optics	344.67	33.34				378.01
(Carried forward)		$83,895.44	$6,219.04	$97,091.83	$59,015.11	$668.86	$246,890.28

EXHIBIT A, Schedule 1. —3.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fee	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought forward)		$83,895.44	$6,219.04	$97,091.83	$59,015.11	$668.86	$246,890.28
895313	Chemical	89.26	34.09				123.35
896807	Drug	691.85	50.00				741.85
899503	Apparatus		7.14				7.14
903047	Chemical		7.69				7.69
903284	Dye			3,377.11	949.85		4,326.96
904043	Chemical		7.18				7.18
904809	Dye	110.85	100.00				210.85
906367	Dye	4,190.88	183.33	167.85	49.00		4,591.06
907941	Chemical		7.69				7.69
911801	Chemical	19.09	.76				19.85
912182	Dye			125.74			125.74
914518	Chemical	217.94	200.00				417.94
916029	Dye			6,727.70	6,619.27		13,346.97
916030	Dye			512.31	8,103.71		8,616.02
918589	Chemical	19.09	.76				19.85
918818	Chemical		100.00				100.00
918920	Dye			427.98	245.40		673.38
919572	Dye		120.00		13.20		133.20
922003	Chemical	19.09	.76				19.85
922282	Dye		100.00	.30	1.20		101.50
922995	Chemical	117.06	100.00		624.20		841.26
923012	Chemical	19.09	.76				19.85
924664	Apparatus	2,116.94					2,116.94
925917	Dye			36.23	1,077.20		1,113.43
926702	Chemical		7.14				7.14
928494	Apparatus		7.14				7.14
931598	Dye		120.00				120.00
932266	Dye				156.50		156.50
932334	Dye			1,447.20	1,258.50		2,705.70
934579	Optics		33.33				33.33
940895	Optics		100.00				100.00
941088	Dye			125.00	37.60		162.60
941768	Chemical	19.09	.76				19.85
943163	Drug	691.86	50.00				741.86
943578	Drug	94.76	100.00				194.76
943717	Dye			30.66	2.89		33.55
948204	Dye			105.75	1,504.03		1,609.78
955068	Dye	1,580.73	100.00	52.74	238.88		1,972.35
955105	Dye			24,229.33	15,152.05		39,381.38
955410	Dye				115.20		115.20
955970	Apparatus		7.14				7.14
956348	Dye	62.69	220.00	2,529.64	1,570.70		4,383.03
957683	Dye			68.44	272.50		340.94
957843	Chemical	19.09	.76				19.85
958325	Dye			1,391.44	226.36		1,617.80
958912	Dye		100.00				100.00
959617	Dye			36.25			36.25
961048	Dye			15.03	13.75		28.78
961612	Dye			2,005.05	1,262.78		3,267.83
962920	Optics		100.00				100.00
963813	Dye			1,896.77	537.60		2,434.37
964415	Chemical	19.09	.76				19.85
(Carried forward)		$93,993.89	$8,186.23	$142,400.35	$99,047.48	$668.86	$344,296.81

EXHIBIT A, Schedule 1.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	License Fee	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought forward)		$93,993.89	$8,186.23	$142,400.35	$99,047.48	$668.86	$344,2
965170	Dye			2,759.01	18.93		2,7
965482	Apparatus	19.09	.76				
965485	Apparatus	174.12	50.00				2
966092	Dye		220.00	4,809.08	3,027.77		8,0
968697	Dye			4,413.59	1,319.75		5,7
970340	Dye			7,023.17	7,922.50		14,9
970878	Dye			1,368.83	3,061.70		4,4
970883	Chemical	19.09	.76				
971149	Chemical	19.09	.76				
971206	Chemical	19.09	.76				
971501	Chemical	19.09	.76				
973611	Apparatus		8.33				
978865	Dye				24.00		
978889	Chemical	2,116.93					2,1
981727	Chemical	19.09	.76				
982022	Apparatus	174.13	50.00				2
982050	Dye			10.60			
984605	Chemical	19.09	.76				
984925	Chemical	19.09	.76				
986148	Chemical	1,022.11	550.00			30.00	1,6
987362	Dye			17.61			1
988720	Optics		33.33				3
989651	Chemical		7.69				
990191	Chemical	19.09	.76				
992947	Dye	1,020.04	125.00		65.00		1,2
993144	Chemical	19.09	.76				
994095	Chemical	19.09	.76				
994437	Chemical		7.69				
995113	Apparatus	1,610.71	20.00				1,6
998091	Optics	1,323.48	100.00				1,4
999025	Chemical	19.09	.76				
999230	Dye			202.99	297.65		5
999439	Dye			364.32	284.40		6
1000732	Chemical	19.09	.76				
1003268	Dye	4,190.86	133.33	17,623.61	16,095.49		38,0
1005176	Chemical	1,654.64	400.00				2,0
1006206	Chemical	19.09	.76				
1008906	Dye			3,417.25	1,355.11		4,7
1008927	Chemical	19.09	.76				
1011014	Chemical	19.09	.76				
1011068	Dye			6,326.50	4,954.30		11,2
1014539	Dye					16.46	
1015566	Chemical	19.09	.76				
1015800	Chemical	19.09	.76				
1016369	Apparatus		50.00				
1018433	Dye			451.29			4
1018990	Chemical	19.09	.76				
1019576	Dye				75.00		7
1019582	Apparatus		8.34				
1020756	Dye				10.45		
1022351	Chemical	19.09	.76				
(Carried forward)		$107,662.71	$9,965.14	$191,188.20	$137,559.56	$715.32	$447,0

EXHIBIT A, Schedule 1. —5.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	License Fee	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought forward)		$107,662.71	$9,965.14	$191,188.20	$137,559.56	$715.32	$447,090.93
24993	Chemical		100.00				100.00
25138	Dye			8,299.20	7,414.13		15,713.33
25174	Dye			844.41	882.76		1,727.17
25195	Dye			14.28			14.28
25766	Optics	344.67	33.33				378.00
28366	Chemical	19.09	.76				19.85
29528	Chemical	19.09	.76				19.85
30334	Chemical		7.69				7.69
31823	Dye				42.50		42.50
34853	Dye	250.41	200.00	1,462.17			1,912.58
34898	Dye			97.30	331.10		428.40
35756	Chemical		100.00				100.00
35873	Chemical	19.09	.76				19.85
36241	Chemical	470.59	50.00		2,113.50		2,634.09
37563	Apparatus	96.35	100.00				196.35
39851	Chemical	19.09	.76				19.85
39852	Chemical	19.09	.76				19.85
40218	Chemical	19.09	.76				19.85
41457	Apparatus		100.00				100.00
42356	Dye	250.41	100.00		32.82		383.23
42679	Dye			22.05			22.05
43468	Dye	2,057.11	33.34				2,090.45
43798	Chemical	19.09	.76				19.85
44673	Dye			73.42			73.42
44674	Dye			414.26	18.63		432.89
45759	Chemical	1,308.71	160.00				1,468.71
48073	Apparatus	50.00	50.00				100.00
49860	Apparatus	50.00	50.00				100.00
53396	Chemical	2,116.93					2,116.93
53951	Chemical	19.09	.76				19.85
53952	Chemical	19.09	.76				19.85
54888	Dye			28.88	183.23		212.11
54901	Chemical	19.09	.76				19.85
55287	Dye		50.00				50.00
55331	Chemical	19.09	.76				19.85
55701	Dye			107.00	1,896.76		2,003.76
56548	Apparatus	2,116.93					2,116.93
57154	Apparatus	2,116.93					2,116.93
58653	Chemical	19.09	.76				19.85
58904	Chemical		100.00				100.00
59817	Chemical	19.09	.76				19.85
59818	Chemical	19.08	.76				19.84
59983	Chemical	770.65	366.68				1,137.33
61139	Chemical		100.00				100.00
61725	Chemical	19.08	.76				19.84
61781	Dye	2,146.46	33.33	1,017.78	805.95		4,003.52
62203	Chemical	62.66	100.00		531.81		694.47
62258	Apparatus		100.00				100.00
63004	Chemical	245.97	100.00				345.97
63173	Dye	27,505.95	100.00				27,605.95
66758	Chemical		7.69				7.69
68966	Chemical	19.08	.76				19.84
(Carried forward)		$149,928.85	$12,119.36	$203,568.95	$151,812.75	$715.32	$518,145.23

EXHIBIT A, Schedule 1.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Royalty	Product License Fees	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Tot
(Brought forward)		$149,928.85	$12,119.36	$203,568.95	$151,812.75	$715.32	$518
1068967	Chemical	19.08	.76				
1068968	Chemical	19.08	.76				
1068969	Chemical	19.08	.76				
1070138	Chemical	19.08	.76				
1070541	Dye	3,782.74	133.33		352.62		4
1073789	Optics	344.68	33.33				
1073823	Chemical	19.08	.76				
1073870	Chemical	19.08	.76				
1073904	Dye				427.12		
1073951	Dye			390.84	431.10		
1075085	Chemical	19.08	.76				
1075171	Chemical	2,158.68	160.00				2
1076756	Dye			.60	112.41		
1077034	Chemical	19.08	.76				
1078125	Apparatus	1,524.38				1,370.64	2
1078135	Chemical	770.66	366.66				1
1078423	Chemical	19.08	.76				
1078686	Chemical	19.08	.76				
1079415	Dye			36.99	128.76		
1079705	Chemical	19.08	.76				
1081592	Chemical	15,123.15	1,216.68			30.00	16
1081897	Chemical	1,022.12	550.00			30.00	1
1082719	Dye				896.08	240.90	1
1083585	Chemical	19.08	.76				
1083703	Chemical	19.08	.76				
1083903	Apparatus	1,610.71	20.00				1
1086881	Chemical	1,290.53	60.00				1
1089185	Chemical	19.08	.76				
1090874	Chemical	19.08	.76				
1091881	Chemical	2,479.30	249.98				2
1092816	Apparatus		100.00				
1094194	Chemical	19.08	.76				
1095780	Dye			80.25			
1096392	Chemical	19.08	.76				
1096393	Chemical	19.08	.76				
1097406	Chemical	4,477.15	400.00				4
1098139	Chemical	19.08	.76				
1099108	Dye	250.42	200.00				
1099710	Optics		100.00				
1100877	Dye			5.47	34.65		
1101111	Chemical	967.42	200.00				1
1101424	Chemical	19.08	.76				
1102716	Chemical	19.08	.76				
1104943	Chemical	3,707.93					3
1105378	Chemical		7.69				
1105447	Dye		100.00		116.56		
1105501	Dye	217.26	25.00				
1105554	Dye	802.82	100.00		360.85		1
1106970	Dye	470.60	50.00				
1107107	Chemical		200.00				
1107926	Chemical	19.08	.76				
1109447	Chemical	19.08	.76				
1109448	Chemical	19.08	.76				
(Carried forward)		$191,387.32	$16,410.27	$204,083.10	$154,672.90	$2,386.86	$56

EXHIBIT A, Schedule 1. —7.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fees	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought forward)		$191,387.32	$16,410.27	$204,083.10	$154,672.90	$2,386.86	$568,940.45
3096	Chemical	19.08	.76				19.84
3097	Chemical	19.08	.76				19.84
3468	Dye		12.50				12.50
5776	Chemical	19.08	.76				19.84
6398	Chemical	3,168.03	550.00			30.00	3,748.03
8595	Chemical	19.08	.76				19.84
8628	Chemical	19.08	.76				19.84
9534	Chemical	19.08	.76				19.84
9546	Chemical		50.00				50.00
1026	Dye	250.42	112.50				362.92
13848	Chemical	14,217.73	400.00			30.00	14,647.73
2011	Apparatus		100.00				100.00
2564	Dye	250.42	212.50				462.92
3430	Dye		20.00				20.00
4776	Chemical		12.50				12.50
5311	Chemical		12.50				12.50
6371	Chemical	19.08	.76				19.84
6475	Dye		16.67				16.67
6656	Dye		12.50				12.50
7027	Dye	250.42	100.00				350.42
7603	Chemical	2,479.30	250.00				2,729.30
8369	Chemical		12.50				12.50
8370	Chemical		12.50				12.50
8371	Dye		20.00				20.00
8804	Chemical	19.08	.76				19.84
8843	Chemical	19.08	.76				19.84
9559	Chemical	19.08	.76				19.84
9574	Dye		116.67				116.67
9575	Dye		16.67				16.67
0785	Apparatus	1,610.71	20.00				1,630.71
1516	Dye		14.29				14.29
3087	Chemical	19.08	.76				19.84
3108	Chemical	102.89	75.00				177.89
4416	Chemical	19.08	.76				19.84
8670	Dye		14.29				14.29
9540	Dye		14.29				14.29
1148	Dye		36.67				36.67
1266	Chemical	600.00	100.00				700.00
4181	Dye	217.26	25.00				242.26
4325	Dye	217.26	25.00				242.26
4730	Chemical	19.08	.76				19.84
5072	Dye		33.34				33.34
5934	Dye		50.00				50.00
8570	Chemical	19.08	.76				19.84
9231	Dye		20.00				20.00
9510	Chemical	19.08	.76				19.84
0152	Chemical		100.00				100.00
0825	Dye		100.00	312.48	274.97		687.45
0863	Dye	259.38	150.00		739.83		1,149.21
2098	Chemical		100.00				100.00
(Carried forward)		$215,297.34	$19,339.56	$204,395.58	$155,687.70	$2,446.86	$597,167.04

EXHIBIT A, Schedule 1.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fees	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Tot
(Brought forward)		$215,297.34	$19,339.56	$204,395.58	$155,687.70	$2,446.86	$597
1152196	Chemical	19.08	.76				
1152197	Chemical	19.08	.76				
1152930	Chemical	19.08	.76				
1154826	Dye		20.00				
1155765	Dye		33.34				
1157253	Chemical	19.08	.76				
1157257	Optics		50.00				
1158167	Chemical	19.08	.76				
1159233	Optics		33.33				
1159865	Chemical	19.08	.76				
1160471	Dye		20.00				
1161200	Chemical	25.00	100.00				
1162496	Dye		50.00				
1164987	Apparatus	5,179.71	900.00				
1165531	Dye		120.00				
1166346	Dye		20.00				
1169267	Dye	250.42	100.00				
1169404	Dye		25.00				
1169731	Optics		100.00				
1169817	Chemical	19.08	.76				
1169895	Apparatus	3,842.24	150.01				
1170247	Apparatus		100.00				
1172061	Dye		20.00				
1172863	Chemical	19.08	.76				
1172908	Chemical	19.08	.76				
1172925	Chemical	19.08	.76				
1173077	Dye		12.50				
1173241	Apparatus		8.33				
1173532	Chemical	19.08	.76				
1173550	Chemical		33.34				
1175091	Chemical		50.00				
1175490	Chemical		50.00				
1175693	Chemical	19.08	.76				
1178440	Chemical	19.08	.76				
1180365	Apparatus		8.34				
1180815	Apparatus		108.33				
1180985	Dye		12.50				
1181431	Chemical		7.14				
1181485	Chemical	1,290.53	60.00				1,3
1183748	Dye	33.98	100.00		17.50		
1183831	Dye		20.00				
1185637	Chemical	1.86	100.00				
1186339	Apparatus		108.33				
1186686	Apparatus		108.33				
1188191	Chemical	19.08	.76				
1188376	Chemical		50.00				
1188421	Dye		20.00				
1188544	Chemical		12.50				
1188545	Dye		12.50				
1191480	Chemical	2,002.95	98.37				2,1
(Carried forward)		$228,191.15	$22,172.39	$204,395.58	$155,705.20	$2,446.86	$612

EXHIBIT A, Schedule 1. —9.

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fees	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought Forward)		$228,191.15	$22,172.39	$204,395.58	$155,705.20	$2,446.86	$612,911.18
193566	Dye	250.42	112.50		1.60		364.52
193829	Dye		33.33				33.33
196127	Dye		64.28				64.28
197315	Apparatus	3,842.26	150.00				3,992.26
197462	Chemical	1,290.53	60.00				1,350.53
197632	Dye		100.00	87.27			187.27
197633	Dye		33.33				33.33
199697	Dye		20.00				20.00
200055	Dye		20.00				20.00
200805	Chemical	19.08	.76				19.84
201607	Apparatus	19.08	.76				19.84
201850	Chemical		33.34				33.34
201968	Dye		25.00				25.00
202260	Dye		25.00				25.00
202995	Chemical	19.08	.76				19.84
205578	Chemical	1,444.44	100.00				1,544.44
206232	Dye	250.42	120.00				370.42
207706	Chemical	19.08	.76				19.84
207707	Chemical	19.08	.76				19.84
207708	Chemical	19.08	.76				19.84
207762	Dye		25.00				25.00
207802	Chemical		133.33				133.33
207981	Dye		50.00				50.00
207982	Dye		50.00				50.00
208134	Apparatus		7.14				7.14
209154	Dye		12.50				12.50
209580	Dye		16.66				16.66
211181	Chemical	19.08	.76				19.84
211394	Chemical	19.08	.76				19.84
212504	Chemical	19.08	.76				19.84
213075	Dye		20.00				20.00
215957	Chemical	19.08	.76				19.84
216059	Chemical	19.08	.76				19.84
216134	Dye		100.00				100.00
216612	Chemical	2,002.81	98.33				2,101.14
217027	Apparatus		50.00				50.00
217028	Apparatus		100.00				100.00
217862	Chemical		100.00				100.00
218423	Apparatus		100.00				100.00
219166	Dye		12.50				12.50
219954	Dye		33.33				33.33
225263	Apparatus	19.08	.76				19.84
225264	Apparatus	19.08	.76				19.84
225755	Chemical	19.08	.76				19.84
228061	Apparatus		8.33				8.33
228879	Chemical		7.14				7.14
231933	Apparatus		8.33				8.33
232551	Dye	10,604.88	700.02			3.27	11,308.17
232552	Dye	10,568.90	699.99			3.27	11,272.16
232620	Chemical	1,570.26	128.32				1,698.58
(Carried Forward)		$260,283.19	$25,540.73	$204,482.85	$155,706.80	$2,453.40	$648,466.97

EXHIBIT A, Schedule 1, —10

INCOME RECEIVED ON PATENTS—(CONTINUED)

Patent Number	Product	Manufactured Product Royalty	Manufactured Product License Fees	Imports—Textile Alliance Inc.	Imports—War Trade Board	Miscellaneous	Total
(Brought Forward)		$260,283.19	$25,540.73	$204,482.85	$155,706.80	$2,453.40	$648,466
1237405	Chemical	1,577.78	148.33				1,726
1238932	Chemical		50.00				50
1239867	Chemical		33.33				33
1243170	Dye			1,195.83	106.97		1,302
1243171	Dye		116.66	3,202.22	648.20		3,967
1243382	Chemical	19.08	.76				19
1244580	Chemical	19.08	.76				19
1251368	Dye		20.00				20
1254364	Chemical	102.92	75.00				177
1255739	Dye		50.00				50
1255740	Dye		50.00				50
1256875	Chemical	19.08	.76				19
1256929	Apparatus		250.00				250
1256930	Apparatus		250.00				250
1261900	Chemical	19.08	.76				19
1261987	Apparatus	1,610.71	20.00				1,630
1264604	Dye		33.33				33
1266896	Dye		14.28				14
1274503	Chemical		33.33				33
1278229	Chemical	2,002.83	98.33				2,101
1278580	Chemical	19.08	.76				19
1280648	Dye		14.28				14
1281494	Chemical		200.00				200
1281775	Apparatus		7.14				7
1285726	Dye		14.28				14
1285727	Dye		50.00				50
1286650	Chemical	19.08	.76				19
1289280	Chemical		200.00				200
1292019	Chemical		33.33				33
1301151	Chemical	19.08	.76				19
1314642	Chemical		100.00				100
1319852	Dye		12.50				12
1322291	Chemical	19.08	.76				19
1330772	Chemical	19.08	.76				19
1336759	Chemical	660.85	78.32				739
Total		$266,410.00	$27,500.01	$208,880.90	$156,461.97	$2,453.40	$661,706

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Patent No.	Date of Application	Date of Patent	Product	Income Received
1089797	1/21/1913	3/10/1914	Tanning Material	none
1107107	6/26/1914	8/11/1914	Compounds for tanning skins and process of making them	$ 200.0
1191480	12/4/1913	7/18/1916	Tanning	2,101.3
1203069	3/23/1914	10/31/1916	Tanning	none
1216612	7/2/1914	2/20/1917	Producing Soluble tanning agents.	2,101.1
1237405	8/20/1912	8/21/1917	Production of new tanning materials Neradol D	1,726.1
1254364	3/23/1914	1/22/1918	Compounds suitable for tanning	177.9
1278229	1/29/1917	9/10/1918	Production of water-soluble Products of the Naphthaline series	2,101.1
1281494	12/30/1916	10/15/1918	Tanning Ordaval G and GG	200.0
1289280	4/27/1917	12/31/1918	Tanning	200.0
1336759	12/4/1913	4/13/1920	Soluble Condensation Product & process of making it. Neradol ND	739.17
1414045	9/2/1916	4/25/1922	Tanning	none
1421722	9/2/1916	7/4/1922	Tanning	none
				$9,546.82
			Other Badische Tanni	
1133108		3/23/1915	Process of producing Soluble tanning agents	$ 177.89
1232620		7/10/1917	Tanning	1,698.58
1395733		11/1/1921	Tanning	none
				$ 1,876.47
				$11,423.29

DEFENDANT'S EXHIBIT No. 108.

The Chemical Foundation, Inc.
Statement Showing Data Re- Tanning Patents form
owned by Badische Anilin & Soda Fabrik.
Patents Mentioned in Testimony by Dr. Karl Holder

	Product	Income Received	First Payment Date		Amount	Last I Date
914	Tanning Material	none				
915	Compounds for tanning skins and process of making them	$ 200.00	6/3/21	F	$100.00	June 1921
916	Tanning	2,101.32	9/9/19	F	20.00	
			1/20/20	R	280.08	Dec. 1922
1016	Tanning	none				
917	Producing Soluble tanning agents.	2,101.14	9/9/19	F	20.00	
			1/20/20	R	280.08	Dec. 1922
917	Production of new tanning materials Neradol D	1,726.11	1/20/20	R	280.08	Dec. 1922
			9/9/19	F	20.00	
918	Compounds suitable for tanning	177.92	6/3/21	F	25.00	Dec. 1922
			7/15/21	R	7.12	
918	Production of water-soluble Products of the Naphthaline series	2,101.16	9/9/19	F	20.00	Dec. 1922
			1/20/20	R	280.08	
918	Tanning Ordaval G and GG	200.00	6/3/21	F	100.00	June 1921
918	Tanning	200.00	6/3/21	F	100.00	June 1921
29	Soluble Condensation Product & process of making it. Neradol ND	739.17	1/8/20	F	20.00	Dec. 1922
			4/19/20	R	10.59	
922	Tanning	none				
2	Tanning	none				
		$9,546.82				

Other Badische Tanning Patents Not Mentioned by Dr. Karl

1	Process of producing Soluble tanning agents	$ 177.89	6/3/21	F	$ 25.00	Dec. 1922
			7/15/21	R	7.12	
1	Tanning	1,698.58	9/9/19	F	20.00	Dec. 1922
			1/20/20	R	280.08	
21	Tanning	none				
		$ 1,876.47				
		$11,423.29				

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EXHIBIT Q.

ast Payment e		Amount	Other Comments
			Never licensed
1921	F	$100.00	Payment received for license fees only. Product never manufactured.
1922		57.08	There were 6 Licenses in effect at 12/31/22. Four of these were inactive at 12/31/22 and the other 2 paid royalties of $245.82 in year 1921, had decreased to $44.14 in year 1922. Never licensed.
1922		57.08	Same as Patent 1191480, (see note).
1922		9.95	Four licenses in effect at 12/31/22. Three of these inactive at 12/31/22.
1922		9.95	Four licenses in effect at 12/31/22. Three of these inactive at 12/31/22.
1922		57.08	Same as Patent 1191480, (see note).
1921	F	100.00	Payment received for license fee only. Product never manufactured. Rohm & Haas stated their letter 8/23/21 that their efforts to produce a synthetic Tan under this patent were unsuccessful.
1921	F	100.00	Payment received for license fees only. Never manufactured.
1922		57.08	Same as Patent 1191480, (see note).
			Never licensed.
			Never licensed.

Karl Holderman

1922		$ 9.95	Four licenses in effect at 12/31/22. Three of these inactive at 12/31/22.
1922		9.95	Four licenses in effect at 12/31/22. Three of these inactive at 12/31/22.
			Never licensed.